

AMERICAN VETERINARY REVIEW.

DECEMBER, 1897.

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EDITORIAL.

FEMALE VETERINARIANS.

In our era of progress it is not surprising to see women entering liberal professions. We have women doctors of law, perhaps doctors of divinity. We may by and by have them doctors in dentistry. Why should they not be also doctors of veterinary medicine? To reach this, a few, very few, have already entered the schools of the continent and even lately England has granted her degree to a fair candidate, and, of course, America is following the example, one lady having already entered one of the New York schools, and we are informed several have made inquiries as to admittance in another, though they were deterred from giving execution to their intentions by the severity of the requirements, length of studies, etc. With our ordinary tendency of overdoing things in America, it is fair to suppose that before long every school in the country will have a mixed class of male and female students.

It is not our intention to make any remarks as to the propriety or impropriety of ladies entering the veterinary profession, nor to discuss the *pro* and *con* to justify their desire to become veterinarians, as we sincerely believe that they ought to be left to make their own selection; but the following extract from a letter published in an English exchange, seems to us very appropriate, and we think deserves proper notice as a means to present to ladies ambitious of the title of D. V. S., or any like title, the true and correct aspect of the case, which may arrest

them from entering a profession which, with all its attraction, its extensive field for study and great interest, may on so many occasions by its calling oblige her to abandon or lay aside all the grand feelings which are characteristic of her sex. The extract of "Fosco's" letter taken from the *Veterinary Record* reads as follows :

"Viewing the subject entirely dispassionately it appears to me that veterinary surgery is of all the learned professions the one least adapted for women. If the practice of veterinary surgery consisted in making a round of visits among lap-dogs, or drawing-room pets of that description, and simply diagnosing their diseases and giving advice as to dieting and general hygienic conditions, and writing a prescription or even dispensing the necessary medicines, then, and only then, the profession *might* be a suitable one for women possessed of any delicacy of feeling. But as we all know there is no such practice as the above to be found in the United Kingdom; and even if the female practitioner were to confine herself entirely to canine and feline practice, yet she is bound to meet with certain operations in the pursuit of her calling which must (or perhaps in view of the new woman I had better say should) be utterly repugnant to any one possessing what is the greatest charm of any true woman, namely, modesty. No lady—using the word in its true sense—would like to perform those operations which are the almost daily work of the veterinary practitioner, especially when we take into consideration the fact that male assistance in securing the patient is practically indispensable. Of course if a woman is prepared to unsex herself completely and to throw to the four winds all feelings of modesty and delicacy there is no reason why she should not become a successful practitioner of veterinary surgery even among the larger animals; but all who know what the nature of veterinary practice is will, I am sure, agree that unless prepared to do this no woman can hope to practice with any degree of pleasure, to say nothing of success. . . . If women, instead of seeking notoriety by any means in their power would be content to fulfil those duties for which they are fitted by nature they would not only secure a greater measure of true happiness to themselves, but would also be of incalculable service to their fellow creatures and their native land."

ASININITY OF THE M. D. ON VETERINARY TOPICS.

In the face of all the observations and experiments of the qualified agents of the governments of almost every civilized

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nation of the earth, of the life studies of the veterinary savants of Europe and America, and their recorded conclusions in reference to the etiology of bovine tuberculosis, a medical practitioner in Brooklyn has solved the gigantic problem of its prophylaxy in the simplest and most inexpensive manner possible, based upon his vast experience gained during "his summer vacations in all parts of the country." Not only this, but he has discovered that bulls, steers, and unimpregnated heifers never contract the disease. That such an authoritative journal as the *Medical Record* should give space to such arrant twaddle is incomprehensible. It is not an isolated case of medical ignorance upon veterinary subjects, but is a sample of many of its kind, and is a serious argument against placing animal diseases under the charge of State Boards of Health, made up almost exclusively of medical practitioners. We reproduce the document in full:

"*To the Editor of the Medical Record* :—SIR: A few years ago we were surprised and alarmed by the discovery that a large number of the dairy cows of this country and Europe were affected with bovine tuberculosis. The public was much excited, and I believe that most of the diseased cows were destroyed and the expenses added to our already overburdened tax-list. And there the matter seemed to have ended, so far as the institution of any preventive measures was concerned.

"Since that time during my summer vacations in all parts of the United States I have endeavored to find out the *cause* of bovine tuberculosis, and the answer has invariably been *over-milking*, viz., not allowing the cows any rest during pregnancy, but milking them from *one year to the other until they die*. In many instances I know this to be true, as the farmers have assured me that their cows *never* 'went dry'; but these same farmers would never allow their own children to be nursed during their mother's pregnancy.

"I am assured that *bulls, steers, and unimpregnated heifers* never contract tuberculosis.

"That there are other secondary causes, such as too close confinement in warm houses or stables, I have no doubt; but the *primary and principal cause* is as I have stated above, and it must and will be remedied; not by forever killing the cows as they develop the disease, but by removing the cause.

"The law should compel every farmer or dairyman to allow his cows to go dry for the last three months of gestation.

"This is a very important matter, and I hope that other physicians will investigate for themselves.

JOHN H. TRENT, M.D.

196 Seventeenth Street, Brooklyn.

TAUTOLOGICAL EXTRAVAGANCE.—When one bears in mind how frequently the *Journal of Comparative Medicine*, etc., indulges in apologies to its readers for the omission of important articles on account of pressure upon its plethoric pages, it is difficult to understand how so much valuable space could be spared in the editorial department of its November issue to print the same item three times, with the only object of showing that a paragraph which we had found in a prominent position in the *New York Spirit of the Times*, had originally emanated from the editorial mind of the *Journal*, without stopping to appreciate the fact that the only idea which the REVIEW had in reprinting and crediting it to the New York sporting paper was to show veterinarians that the Anti-vivisection Bill was of such vital import as to call forth editorial comment from a powerful representative of the secular press. The junior editor of the REVIEW is a close reader of the *Journal*, and always finds something to interest, often to instruct, and sometimes to amuse.

HIGHER EDUCATION is a slogan that every honorable man has delighted to reëcho. But New York raised it so high at one bound as to lift the responsibility of education in the medical sciences clear of its borders. With 48 counts for an entrance examination (which includes subjects as foreign to medical education as the Klondyke is from Patagonia) the State has driven thousands of students from the veterinary, dental, and medical schools into other States, whose laws are progressive but not prohibitive. Unless the law is modified, there will not be a corporal's guard of students in the Empire State, which was once the centre of medical education.

A PROPHECIC VISION INDEED.—The *Veterinary Journal* (London) for November gives up its entire editorial department

to a five-page idiotic and clumsily-constructed lot of nonsense entitled "A Prophetic Vision ; being a Lecture to be Delivered by the President of the Royal Zoological Society at the Opening of the Session, November, 2097." It purports to be an historical sketch of an extinct animal known as *equus caballus*, or the horse, and describes the motive power for carriages and other vehicles of that date as electric cables. Such twaddle may be appropriate reading matter for English comic papers, but for a professional journal it is stupid and out of place.

THE TUBERCULOSIS CRUSADE IN HONOLULU.—A check is sought to be placed upon the testing of cattle with tuberculin in Honolulu by a charge that the epidemic of dysentery now affecting the people of that city is due to the tuberculin injected into the milk cows by the local inspectors, and the author of the charges makes the assertion that its use has been abandoned in Germany for the reason that it poisons the system and renders the milk unfit for consumption. Surely the veterinarians of that country have had sufficient evidence of the falsity of such assertions through the pages of the REVIEW and other sources to effectually deny and prove that the milk from tested cows suffers no deterioration in its purity from such a source.

THE ENGLISH LADY VETERINARIAN.—Principal Williams and his son, Owen W. Williams, of the New Veterinary College, Edinburgh, Scotland, have begun suit against the Royal College of Veterinary Surgeons to compel them to admit for examination for license a lady whom they qualified and who was refused by the examiners on account of her sex.

EDITORIAL MODESTY has naturally restrained us from assuming that the veterinary periodical is the greatest factor in professional development ; but there can be no egotism in sincerely seconding the remarks of Dr. Dalrymple in his report to the United States Veterinary Medical Association, which we print elsewhere, and to which we direct careful attention.

ORIGINAL ARTICLES.

THE VETERINARIAN AND THE HUMANITARIAN.

THE CLOSE RELATIONSHIP EXISTING BETWEEN THE VETERINARY PROFESSION OF TO-DAY AND ORGANIZED SOCIETIES FOR THE PREVENTION OF CRUELTY TO ANIMALS.

BY W. H. DALRYMPLE, M. R. C. V. S., BATON ROUGE, LA.

A Paper read before the American Humane Association, at their Twenty-first Annual Convention, held in Nashville, Tenn., Oct. 15, 1897.

Mr. President, Ladies and Gentlemen of The American Humane Association :

I can assure you I feel highly honored by the invitation extended to me, through your local committee, to address this convention of workers in such a noble cause as that of endeavoring to prevent and alleviate the sufferings of "Nature's Dumb Nobility." Statistics, with regard to the beneficent results, the world over, of the great and good work of this and kindred associations, must be familiar to the majority of you, consequently this impressive side of the work I do not purpose touching upon, but will confine my remarks chiefly to that important branch of the subject suggested by the caption of my paper.

On account of my devotion to that noble branch of medical science of which I have the honor of being a humble representative, I trust I may be pardoned should my effort, on this occasion, appear to savor somewhat strongly of veterinary professionalism. It is a fact, however, that the modern veterinary profession is as yet but slightly known in many parts of this country, and is in consequence, indifferently appreciated. We are constrained to the belief, however, that when the hand of Time has fallen upon its endeavors to right the wrongs of past ages, the dark doings of empiricism, superstition and cruelty will yield to the photophobic influence of the light of education, reason and intelligence.

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I have been impressed with the idea that the beautiful lines of the poet Burns, parodied to read: "Man's inhumanity to his dumb servitors makes countless thousands mourn," would make a fitting motto for a humane society, and one which should be firmly impressed upon the mind of everyone, but more especially the young and rising generation, because the earlier the impressions are made, the more lasting are they, not perhaps as the outcome of reasoning, but as the result of implicit belief and faith in the maxims taught in early youth.

There can be no doubt that one of, if not the greatest clog to the wheels of the progress of the work of our humane societies is ignorance on the part of our people, and indifference, which is born of the former; and in order that the acme of our desires may be reached, in seeing the day when the physical infirmities of those dumb but noble creatures which God has given us to lighten our daily routine of work, or contribute to our pleasures, have been respected and considered, we must look to education for the accomplishment of this great end.

Where, it might be asked, should this education commence? It is my conscientious conviction that the nursery is the first school in which the seed should be sown; and that the cultivation and fertilization of that seed should be undertaken by every school, whether public or private, in the land. There should be a grounding in physiology for the purpose of impressing upon the student the normal functions of the various important organs of the animal economy. Attention should also be given to pathology, elementary if you will, to illustrate the results produced by a deviation from the normal standard of health, and the simpler causes by which these conditions are brought about. A somewhat simple but impressive course of instruction on the physiology and pathology of that system of nerves known as the cerebro-spinal, for the purpose of illustrating the effect of nervous irritability, both direct and reflex. In other words, elucidating the phenomenon of pain, its production, etc.

The education of the youth along these lines, would, it

seems to me, tend to aid, very materially, the noble work for which our humane societies were organized, and ultimately to decrease the necessity for their existence. There is another school, in which a more intimate knowledge of comparative anatomy, physiology and pathology, might help along, very considerably, the humanitarian work. I refer to our medical colleges. It is unfortunate,—and I speak it with all due respect—that no little ignorance prevails, at the present day, among members of the medical profession regarding the closeness of the analogy there exists between the two branches of medical science. The result is, that but limited assistance to the cause can be expected from that source; not of course from lack of desire, but from want of confidence, due to insufficient knowledge of such analogy. If our medical institutions would enlarge their field of teaching in the broad subject of medicine so as to include comparative studies, of even an elementary character, our practising physicians, armed with a more or less intimate acquaintance with the subject, would then be able to exert a wholesome influence on the public in this regard, and give more emphasis and weight to the value of the humanitarian work of our associations.

With regard to the influence the veterinary profession has or ought to have, in this direction, it might be stated that all graduates of the modern schools are, in virtue of the profession they represent, honorary members of humane societies; if not actually enrolled as such, are tacitly understood to exert their influence in the cause of humanity in its application to the lower animals. I claim, then, that the profession of modern veterinary medicine and surgery has the power to be, and in fact is, one of the most potent factors in the education of the people along the lines we have just been considering; and it may be of interest for us to consider for a few moments the ground upon which such a claim is based. Before proceeding with this part of my subject, however, I would like to emphasize the fact that there are many forms of cruelty perpetrated on the lower animals, inadvertently it may be, and without any cruel intent,

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but, through gross ignorance of the conditions involved. As an illustration of this, I might quote the saying, "Killed through kindness," and it is true that animals are often subjected to excruciating pain from what might be called "mistaken kindness." For instance, it is a common experience for the veterinarian to be called to relieve the sufferings of some poor animal, the victim of over-feeding and its sequelæ—indigestion, irritation, and inflammation of a portion of the alimentary canal. These pain-producing conditions are frequently brought about through mistaken kindness, the result of a want of knowledge regarding the laws of nutrition. It must be borne in mind that there is a limit to the digestive and assimilative powers; and if we, through ignorance or indifference, indulge in excess with food, animals, which have not the intelligence nor the power to say, "hold, enough," to the point of overtaxing the organs of digestion and producing the agonizing paroxysms we are often compelled to witness, we are, I think, to some extent at least, guilty of cruelty, because such a condition of affairs could be prevented.

Another form of cruelty seen daily on our city streets and thoroughfares, and which we cannot but believe is largely the result of ignorance, is the using of lame horses. Lameness may be defined to be the expression of pain in the act of progression; and as we cannot possibly impeach that noble animal with being guilty of deception, especially to the point of exhibiting signs of pain when not actually in existence, whenever any irregularity of gait is shown, it indicates suffering—of course I allude here to animals that are free from structural deformities—yet we find many people in the enjoyment, seemingly, of unbounded happiness, pleasure-riding behind a poor animal suffering, it may be, very acutely.

Cruelty in another form may be witnessed in many rural sections of the country during the winter season of the year, but which, I opine, escapes the observation, in some measure at least, of the ordinary lay individual. I refer to cruelty from neglect. I have been in the position to see and read reports from correspondents of state departments of agriculture as to

the health and condition of live stock, and have been overawed at the enormous mortality resulting from actual starvation during the months of wintry severity. On almost every report the inscription could be seen: "Stock dying from starvation."

Now, I do not presume to say that this baneful state of affairs is occasioned by any positive intention of cruelty, but I can find no other fitting appellation for it. I claim that anyone possessing an animal, or a number of animals, who does not provide the necessary comfort, in the form of food and shelter, during the extreme seasons of the year, is guilty of an overt act of cruelty; and this also applies where a greater number of animals are kept than can be properly provided with the common comforts of animal life.

There are many other species of cruelty perpetrated on the lower animals, through a lack of education and knowledge, that might be alluded to, but as time will not permit of an exhaustive paper on such an inexhaustible topic, I will be compelled to forego discussion of them on this occasion. The references made, however, may, I trust, be the means of awakening special interest among owners themselves, with regard to those conditions which inflict forms of cruelty, through neglect and indifference, but which may as yet be without the pale of the influence of our humane societies.

There is another thought along this line which, if I passed over without allusion, I would feel recreant to duty. I refer to the pain that is often inflicted upon the noblest of our dumb friends as the result of the dictates of *fashion*. There are many people who will thoughtlessly, and I trust I am correct in saying unknowingly, that is, of the consequent suffering of the animal, require of the veterinarian the performance of some operation, simply because fashion seems to demand it. Relative to this topic, permit me to quote to you the remarks of the eminent British veterinary authority, Dr. George Fleming, in his work on surgery. He says: "Humanity is largely concerned in the humane treatment of animals, and in relieving them from pain or distress. All *unnecessary* painful operations are acts of cruelty"

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and should be discountenanced by the veterinary surgeon. Those operations which, after all, are only fashionable mutilations of perfect animals, devised by a morbidly artificial and corrupt taste, should be suppressed, if not by law, at least by the influence of the surgeon." From the quotation just made it may be inferred that this is the opinion and sentiment of many of the most eminent members of the profession to-day, but, so long as owners remain the slaves of fads and fashions, and ignorant of the pain these "fashionable mutilations" and other modes of torture, from whatever cause, inflict upon their animals, so long will these unnecessary and painful operations and methods be practised. In other words, the demand for such must be decreased, through the better education and enlightenment of the people in those matters, a knowledge of which would greatly preclude the possibility of such requests being made by those of intelligence.

I have, in the foregoing, omitted reference to open and wanton acts of cruelty which could not possibly escape the observation of even the uninitiated; and have deemed it more instructive to allude to some of the agencies which lead to painful results, but which are liable to escape the notice of those responsible for their production, with, however, no cruel intent.

Before leaving this part of my paper, I would like to add a word or two with reference to lameness. It is my opinion, that some of the officers or inspectors of our humane societies are not sufficiently familiar with the pathology of this condition, and seem to attach less importance, relatively, to it, and more to other conditions, which, to the casual observer might appear extremely severe, yet do not, in reality, produce nearly so much pain as that causing an animal to go lame. To illustrate: The driver or owner of an animal may be arrested and fined because of his animal having an abrasion of the skin, or "gall," as it is sometimes termed, below its collar, no larger perhaps than a 25 cent piece; yet on the other hand, 50 or 100 lame animals may be allowed to pass unheeded, unless in the case of those that are absolutely prostrated and unable to proceed. Now in the case

of the abraded shoulder, there may be extremely slight, if any pain at all; while in the latter, lameness is never exhibited without pain, unless in the case of deformity resulting probably from some previous injury, or pathological condition. It must not be understood that I am, in any way, trying to exonerate the owner of the animal with the sore shoulder, and attach blame to the officer for his vigilance. This is not my object. All indications of cruelty, whether exposed to view or occult, should be dealt with, but I am of the opinion, and that from experience, that lameness in our city, and other horses, does not receive the attention it merits at the hands of our humane societies, for the alleviation of a great deal of the suffering of these animals.

In continuing the consideration of the grounds upon which I claim that the profession is a most potent factor in the education of the people in the interests of humanity, I have, in the first place, to notice the fitness of the veterinarian, on account of his special course of instruction and training, which familiarizes him with the lower animals in health and in disease. He has made a study of the anatomy, both microscopical and histological, of the various systems of the equine species, and the differential characteristics exhibited by the other domesticated animals; the physiology, or functions, of the numerous organs and tissues of the body, including that of movement, nutrition, etc.; dietetics, also, including the chemical analysis of the various alimentary matters, their food value, and their nutritive relations, as well as the quality and quantity required for maintenance, repair, for growth or for work. He has studied, also, the various medicinal agents, both mineral and vegetable, and their actions: physiologic, therapeutic, and toxic. Pathology as well, or the study of disease to which the various systems of the animal economy are susceptible; and the most modern prophylactic and therapeutic measures to be adopted for its prevention, control, eradication, or cure. The subject of bacteriology, with its myriad forms of organismal life, their life-histories, the poisonous ptomaines they elaborate, and the

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antitoxins to antagonize their destructive and deadly effects. Suffice it to say, that there is no branch of medical science with which the modern graduate is not familiar, in its application to the lower animals, the cause of whose distress and pain cannot be elicited by interrogatories, because the symptoms are entirely objective, and have to be diagnosed by careful investigation and observation.

Possessed of such knowledge, then, can there be any good or just reason to doubt the fitness of the veterinarian as an educator of the people, or as a valuable aid to the work of our societies which are organized for humanity's sake.

As to the various channels through which representatives of the veterinary profession are, or can become, instructors or educators in this great and noble cause, I might mention first the regular colleges, whose object is to train young men for their life-work along the lines just indicated, who go out into the world equipped with the knowledge of human methods for the prevention and alleviation of animal suffering. Again, those of us through our connection with State universities, and A. and M. Colleges, have the privilege and opportunity of impressing upon the youthful mind, scientific truths, bearing upon this subject, and the heaven-born principles of humanity, in the care and treatment of live stock.

The general practitioner, in his daily routine of professional work, has the opportunity to illustrate and explain to his client the superior advantage to be gained by the use of rational and humane methods of treatment; and to denounce the barbarisms that are perpetrated by the ignorant, illiterate, and superstitious. And I am of the opinion, that anyone who would stand by and complacently witness the inhuman treatment of a dumb animal by one who is totally ignorant of the true condition, or its proper and legitimate treatment, is an accessory, and is guilty of a wanton act of cruelty.

There can be no doubting the fact, then, I think, that the veterinary profession of to-day is a most important aid in the accomplishment of the great end to which our humane societies

are striving, but, to strengthen its hands along this line, it needs a little more appreciation and encouragement. It must be borne in mind by our people, that the day of the old "horse-doctor" is fast nearing its close, and that that worthy, who served his day and generation as best he could, according to his light, has been superseded by a profession that is as honorable as it is noble, and which has within its ranks men of as high order of education and intelligence as in any other of the learned professions.

The object of our humane societies is perhaps the noblest under heaven: preventing, mitigating, or altogether relieving the pain and suffering of those creatures who have not the opportunity nor the power within themselves to do so; and there is no organization which should be so gigantic in its membership, or so universal in its power for good. People of all ranks, whether social, political, or religious, should be on its roll, and lend their best efforts to carry on the good work. We must educate ourselves out of the too common idea that the lower animals are mere automatons, and learn to know that they are flesh and blood like ourselves. Let us all adopt the golden rule and apply it to those dumb servants which the Creator has placed within our care, for our benefit, comfort, and happiness. Then we will have the pleasing satisfaction of knowing, that in doing our duty to that noble part of the creation, we are performing a duty to the Creator himself.

I will close with two verses from a short poem on "The Hoss," by James Whitcomb Riley:

"But when I see the beast abused,
And clubbed around as I've saw some,
I want to see his owner noosed,
And jest.yanked up like Absolum!

I love my God the first of all,
Then him that perished on the cross;
And next, my wife,—and then I fall
Down on my knees and love the hoss."

INHALATION PNEUMONIA.

By W. L. WILLIAMS, PROFESSOR OF SURGERY, AND P. A. FISH, PROFESSOR OF THERAPEUTICS AT THE NEW YORK STATE VETERINARY COLLEGE.

A Paper read before the United States Veterinary Medical Association at Nashville, September 9, 1897.

The inhalation of foreign bodies, whether mechanical, chemical or bacterial tend usually toward bacterial invasion of the bronchial mucosæ, extending thence to the deeper parts, finally involving all tissues of the lungs, inducing suppuration, necrosis and death.

The symptoms vary greatly in detail, though in general present the ordinary signs of bronchitis and pneumonia, along with expectoration of foetid bronchial secretions, with such variations in chest sounds as would result from the presence in the tubes of the foreign bodies inhaled or of the products of disease.

The most common causes are the inhalation of medicines during their forced administration, of food particles during coma, as in parturient apoplexy of the cow, of pathogenic organisms and their products after arytenectomy for the cure of laryngismus paralyticus in horses or other operations involving the upper air passages, by the inhalation of pus discharged into the fauces or upper air passages from abscesses, diseased teeth or tumors, by animal parasites in the air passages, by the inhalation of irritant gases, or hot smoke, or of liquid chloroform during the production of anæsthesia and by a great variety of more rare accidents ending in the lodgment of irritant foreign bodies within the air passages.

We might include also a highly important class of infections like diphtheria, in which there is a tendency for the extension of the lesions to the lungs, or of tuberculosis, actinomycosis and glanders, where there frequently occurs necrosis and softening of patches of lung tissue, which, discharging into the bronchii, tend to pass upward, only to be in part carried backward into neighboring bronchii, establishing there their typical patho-

logical processes in that manner commonly termed auto-infection.

The handling of these cases has, as a rule, proven ineffectual, and led practitioners to recoil from them with well founded dread.

The plan of treatment usually adopted has consisted of the internal administration of expectorants and sedatives with some of the gum-resins possessing antiseptic properties and which are largely excreted by the lungs, and the inhalation of vapors, either simple or medicated.

Intra-tracheal injections of vermicides have been successfully employed in verminous bronchitis, and the bronchial mucosa has been used as a prompt and reliable absorbent surface for the administration of various drugs in solutions of small volume. The senior writer has attempted the administration of antiseptics in small volumes by intra-tracheal injection in cases of suppurative bronchitis, and has endeavored to aspirate suppurative areas of the lung and inject the cavities with antiseptics, but without noteworthy success.

Beaumont Small (Handbook of Med. Sci. IX, 756) employed a 1 to 500 solution of pyoktanin in the form of intrapulmonary injection of 8 to 16 minims in pulmonary tuberculosis, which was reported well borne, except that when reaching the bronchii it caused violent coughing, but was said to have lessened the hectic condition and diminished the number of bacilli in the sputa.

We have been unable to find record of any attempts to administer per trachea for therapeutic purposes, large volumes of liquids either as mechanical detergents or as topical or general antiseptics, the filling of the lower air passages with liquids being associated in the popular mind with drowning.

Opposed to this fear existed the well-known fact that in partial drowning the water which had well filled the air passages was in many cases partly drained out, largely absorbed, and the patient left little worse for the experience beyond the physical shock.

It had also been shown experimentally that large quantities of water could be slowly introduced into the lungs through the trachea and become absorbed without untoward results, while a like volume introduced rapidly and persistently would produce profound disturbance and eventually death. Notwithstanding that absorption occurs more rapidly in the lungs than elsewhere in the body, excess of fluid effects material changes not only in the respiratory epithelium, but also in the blood in which any change must necessarily affect all other tissues.

In an experiment at Lyon, France, under the direction of Gohier, 30 litres (7 ½ gals.) of water were injected into the trachea of a horse without causing death. In another case it required 40 litres (10 gals.) to kill the animal by suffocation. Colin (1873, Vol. 2, p. 109) experimenting along the same line introduced into the trachea of a horse by means of a special apparatus, 6 litres of water per hour at a temperature of 30 to 35 degrees C., which was continued for 3 ½ hours, making a total of 20 litres, after which the animal was immediately destroyed, the bronchii quickly opened, but found empty, all the water having been absorbed.

In another horse he introduced into the trachea 25 litres of water in six hours, and bled him three times at intervals of two hours, obtaining 6 kilogrammes (13 $\frac{2}{10}$ lbs.) of blood. The respiratory mucosa absorbed all the water without apparent inconvenience to the animal.

Intra-tracheal medication, though not in general use, has much to recommend it when rapid effects are desired, especially in those pulmonary diseases where antiseptics are indicated.

Among the agents best adapted for this use, is hydrogen peroxide, which is antiseptic, non-toxic, deodorant, styptic, and in dilute solution non-irritant.

With these facts and suggestions before us, two cases were presented at the clinics of the New York State Veterinary College, which served to invite more radical attempts at intra-tracheal medication than had previously to our knowledge been undertaken, the results of which were to us at once so unex-

pected and instructive, that we felt ourselves warranted in communicating them to the profession, though admitting that our experiments were preliminary and quite incomplete.

Case I. was an adult roadster gelding, vigorous and sound so far as known except well marked laryngismus paralyticus, on which account he entered the clinic for the removal of the left arytenoid cartilage. After careful dieting he was cast for the operation on June 3d. General anæsthesia was omitted and cocaine used to produce local insensibility. A tracheotomy tube was inserted some twelve inches downwards from the larynx, after which the arytenoid cartilage was excised in the ordinary manner by the senior author of this paper. The patient fought viciously throughout the operation, and the day being warm he became very hot and bathed in profuse perspiration.

The operation completed, the tampon trachea tube was inserted and the operation field tamponaded with absorbent cotton and iodoform.

When released, the patient required assistance to regain his feet, and was so greatly exhausted that he was placed in slings.

On June 4th the tampon and canula were removed, the operation field carefully sponged with 1-1000 sublimate solution, and the horse was permitted to drink a goodly quantity of milk, which he apparently relished. From this time until June 10th the patient seemed bright, drank liquid food with avidity, temperature was normal, and all appeared well except an abundant and ever-increasing foetid purulent discharge from the nostrils and tracheal openings.

On June 10th he appeared weaker and had fallen down, but was quickly assisted to his feet, and the foetor of tracheal discharges still increasing, we injected small quantities of hydrogen peroxide into the trachea, which cause the discharge of some froth.

On the 11th well-defined suppurative broncho-pneumonia was noted, the patient was rapidly failing, and the area of disease was so great that the intra-tracheal injection of small volumes of antiseptics could promise no benefit. At this juncture

Professor Law suggested that as an experiment on a hopeless case we might, in the light of the experiments noted above, attempt the administration of antiseptics by the intra-tracheal injection of large volumes of liquids and permit them to be absorbed from the pulmonary mucosa. We prepared a tepid solution consisting of 5 litres of water, 30 grammes sod. chlor. and 60 c. c. of the commercial solution of hydrogen peroxide.

Placing this in an irrigating reservoir at an elevation of ten feet above the animal, with the liquid gravitating downward through $\frac{3}{8}$ inch rubber tubing and escaping through a $\frac{1}{4}$ -inch nozzle, the latter was inserted in the tracheal opening and the liquid allowed to flow into the trachea in a full stream until about one litre had entered, when by an expulsive effort the greater part was thrown out through the tracheal openings, mouth and nostrils, the liquid emerging frothy and carrying with it foetid discharges. As soon as that which had been thrown into the trachea was well out the process was quickly repeated until within 10 minutes the entire 5 litres of liquid had passed into the trachea, the greater part of it having been thrown out again, carrying with it much putrid material.

This was accomplished without apparent distress to the patient, causing only a moderate amount of coughing with each expulsive effort, and leaving him at the conclusion of the ordeal apparently without additional fatigue and with the foetor of his breath very effectively diminished, his air passages clean and to all appearances the local conditions materially improved. The patient died on the following day without our having repeated the treatment, and the autopsy showed extensive necrotic broncho-pneumonia.

The only result gathered from the case was the facility with which large volumes of liquids could be rapidly introduced into the trachea without producing inconvenience to the animal worthy of remark, at the same time thoroughly flushing out the air passages and measurably deodorizing and disinfecting them.

Case II. was in all material respects like I operated upon on June 4th this year, in the same manner as No. I. by student H.

The patient struggled less violently than I., and was less fatigued after the operation.

Tampon and tampon canula applied as in I. and removed on following day.

Deglutition very imperfect, almost all fluids taken into the pharynx being expelled through the nostrils and tracheal openings.

From June 6th to 12th the loss of power of deglutition continued unabated, and there were no notable changes except that gradually increasing foetid discharges took place from the nostrils and tracheal and laryngeal openings. By the 13th of June the patient had become exceedingly weak, having been practically without food, either solid or liquid, for nine days. At this stage the tracheotomy tube which had been removed on June 6th was replaced as a precautionary measure, and the patient allowed to eat succulent grass and soft bran and linseed mashes, of which he partook sparingly, much of it dropping out through the laryngeal opening. By June 17th the breath had become very foetid, which on the 18th had become excessively stinking.

An examination of the tracheal wound revealed a necrotic piece of cartilage which was excised. We then introduced into the trachea 5 litres of tepid water, with 30 grammes sod. chlor. and 60 c. c. solution of hydrogen peroxide, which flowing in rapidly was largely expelled, flushing thoroughly the air passages, pharynx and surgical wounds, cleansing and deodorizing the parts.

On the 19th the foetor seemed so much less that the irrigation was omitted, but on the 20th the foetor had increased and the lungs were again flushed out like on the 18th without inducing any marked discomfort. The intra-tracheal treatment was now discontinued.

After this the patient seemed to improve slowly if at all, in strength, appetite and power of deglutition, and was greatly harassed by a persistent cough. The tracheotomy tube was removed on June 25th, as the power of deglutition now seemed restored, and by July 14th the tracheal and laryngeal wounds

had closed, but the cough continued, the patient remained emaciated and weak, the appetite indifferent, the breath had again become foetid, especially evident during his fits of coughing, during which he expectorated through the mouth or expelled through the nose dirty gray very foetid discharges. As there was evidently still some serious pathological condition present, we re-opened the laryngeal and tracheal wounds for examination, finding each completely healed and all adjacent parts apparently normal.

We had barely completed our physical examination of the parts when in a fit of coughing he expelled through the laryngeal incision an excessively foetid dirty grayish tenacious mass which it could now be no longer doubted had emanated from low down within the bronchii and indicated local purulent bronchopneumonia.

We then began anew the irrigation of the bronchii, the volume, composition and mode of administration of the fluid remaining the same, and being repeated daily.

On the 15th we began the internal administration of quinine sulphate, 3 i, nux vomica grs. xx, and arsenic grs. ii, twice daily.

At the first expulsive effort during each irrigation, the patient expelled with the water about 10 c. c. of a dirty gray very foetid tenacious discharge, and on July 17th, he expelled a piece of foetid necrotic tissue estimated to weigh 2 grammes.

On July 18th, the volume of water was reduced to 3 litres, the sodium chloride correspondingly, leaving it at 6%, while the volume of hydrogen peroxide was left unchanged.

On July 19th, five days after the beginning of the regular daily irrigations, the foetor of the expectorated mass had greatly diminished, while its color had changed to almost that of ordinary mucous.

July 20th no foetor could be detected in expectorate, nor in expired air.

July 26th, the hydrogen peroxide was doubled, which caused more coughing and resulted in increased discharge of bronchial

secretion on the 27th and 28th, though the hydrogen peroxide had been reduced on the 27th to the original amount and was so continued thereafter.

By July 31st the patient had markedly improved in every way, was gaining rapidly in flesh, the cough was less frequent, the bronchial discharge less, and seen practically only at times of irrigation, and the animal would run and play in the paddock.

The use of the tracheotomy tube, through which injections were made, was dispensed with on July 30th and the nozzle of the injecting tube inserted directly in the trachea with an apparent advantage in causing less coughing.

On August 2d the patient had so far recovered that treatment was discontinued and the tracheal wound permitted to close.

August 7th he was hitched to a buggy and tested at a rapid pace up a steep hill, and found apparently much improved in wind.

On August 12th he was driven home, a distance of twenty miles, without showing signs of fatigue. On August 31st the owner reported the patient much improved in flesh, practically free from cough, almost free from respiratory difficulty when driven rapidly, and taking exercise work daily without fatigue or other difficulty.

While our experiments were very limited in extent, and can be regarded only as preliminary and suggestive, some facts have been established which appear to us of interest.

It has been shown that large volumes of water can not only be introduced slowly into and absorbed from the lungs, but that such quantities can be introduced into the trachea and bronchi at a rapid rate, if the trachea is open, and be thrown back through trachea, larynx, pharynx, mouth and nostrils, thoroughly flushing these parts, constituting thereby our most efficient cleansing procedure. We have shown that the air passages tolerate quite well at least one antiseptic, hydrogen peroxide.

Of great interest it appears to us, is the fact that on July 17th, during our irrigation we flushed out a large sized piece of necrotic tissue which must have been lodged low down in the bronchi. In each case we apparently cleared the bronchi, at least the larger ones, of any foreign matter, and we certainly are warranted in believing that the irrigation of the lungs exerted a very favorable influence on the course of the disease.

Our efforts suggest a much wider range of usefulness. In accidental inhalation of drugs during drenching, it seems that irrigation may in safety be depended upon to wash out oils, to dilute and wash out such irritants as alcohol, turpentine, whiskey, chloral, etc., while in case of foreign bodies of considerable size, it offers us a means for their removal, quite worthy of a trial. It seems quite possible that good results might be had by this plan in such affections as pulmonary tuberculosis where large softening areas communicate with, and discharge into bronchi, and in all forms of suppurative broncho-pneumonia, and possibly also in extensive diphtheritic invasion of the air passages.

Perhaps one of its most direct uses will be found in the prevention of inhalation pneumonia after arytenectomy, as it affords us not only a safe plan for thorough irrigation of the field of operation, but the fluid passing down the trachea into the bronchi flush out and destroy any pathogenic organisms which have been inhaled.

We do not say that our plan, formula or rate of administration is the best, other antiseptics may be better and other rate or details of administration may be far superior.

We do not know if it is better to have a tracheal or laryngeal opening or not, though the absence of a counter-opening might, it seems to us, lead to dangerous spasmodic closure of the larynx.

The rate of administration can evidently be varied. We did not know at the beginning of our experiment the rate of administration by the experimenters quoted, and departed widely from their plan by introducing the liquid at a very rapid rate,

quite too rapid to permit of total absorption, and in that way learned that we could, without discomfort or injury, have it quickly expelled, and thus we learned by comparison with Colin's and Gohier's experiments that we may at our option, by varying the rate of administration, either have the liquid absorbed or rejected, or partly absorbed and in part expelled. At some times we apparently had 50 per cent. or over absorbed, though always given rather rapidly, while in other cases nearly all appeared to be rejected.

We have been led to hope that in spite of the meagre experience upon which we have based our communication, the facts and suggestions will suffice to lead others to study the plan of treatment herein outlined, with a view to developing a successful method of therapeutics in this heretofore baffling group of affections.

INTERESTING TUBERCULIN REACTIONS.

BY F. S. SCHOENLEBER, M. S. A., D. V. S., ASSISTANT STATE VETERINARIAN,
MCKILLIP VETERINARY COLLEGE, CHICAGO.

During the month of September, 1897, the attention of the State Board of Live Stock Commissioners was called to a herd of dairy cattle at Hebron, Ill. From the fact that the owner had "lost half a dozen cows during the summer," and from the condition of the remaining portion of the herd it was evident that tuberculosis was present, although it could not be detected in but perhaps two or three cases. A tuberculin test was therefore instituted October 26-28. There were thirty-five milch cows in the herd, all grade Holstein and Shorthorn. Thirty-two were kept in two separate barns; No. 1 contained seventeen head, No. 2 fifteen. The sanitary conditions were, however, quite different in the two cases. Barn No. 1 was so filthy that every time an animal moved the slush would ooze out from between the boards of the floor, while barn No. 2 was well kept and comparatively quite clean. Of No. 1, fifteen out of seventeen reacted, or 88.2 per cent., while of No. 2, only ten out of

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fifteen, or $66\frac{2}{3}$ per cent., gave evidence of the disease. Whether the percentage of the animals affected in the incipency of the disease in the two barns in this case had any connection with or relation to the sanitary conditions of course cannot be positively stated; however, it looks very suspicious, as there was more or less irregularity in the temperatures of nearly all the animals in barn No. 1. The reactions in No. 2 were nothing out of the ordinary. In No. 1 the most conspicuous were the following three:

No. 482, Shorthorn, weight 1050 lbs.; temperature before injection, Oct. 27, 10.30 A. M., 102.1; 2.30 P. M., 102.2; 5 P. M., 102.2. Injected at 7.30 P. M. Oct. 28, 8 A. M., 106; 10 A. M., 105.4; 2 P. M., 98.1; 4 P. M., 100.2—a maximum increase of 3.3° .

No. 487, Shorthorn, weight 1100 lbs.; temperature, Oct. 27, 10.30 A. M., 101.4; 2.30 P. M., 100.4; 5 P. M., 101.2; Oct. 28, 8 A. M., 104.3; 10 A. M., 104; 2 P. M., 102.2; 4 P. M., 102. Maximum increase of 2.4° .

No. 492, Shorthorn, weight 1150 lbs.; temperature, Oct. 27, 10.30 A. M., 102; 2.30 P. M., 101; 5 P. M., 101.2. Oct. 28, 8 A. M., 103.2; 10 A. M., 104.3; 2 P. M., 102.4; 4 P. M., 102. Maximum increase of 2.3° .

The animals were all treated alike; injected at 7.30 P. M., Oct. 27, and watered at 12 M. In No. 482 the temperature at 5 P. M., before injection, was 102.2° ; the following morning at 8 A. M. it was 106, and at 2 P. M., six hours later, it had fallen to 98.1° , or nearly eight degrees, an average of over one degree per hour for six hours. The deviations from the regular reaction in Nos. 487 and 492 were not quite so great. The condemned cattle (the whole number which reacted) were shipped to the abattoirs at the Chicago stock yards, Nov. 2d, slaughtered under the direction of the State Veterinarian, Dr. C. P. Lovejoy, and the State Board of Live Stock Commissioners, and through their courtesy the autopsies were held by the senior class of the McKillip Veterinary College, under the immediate supervision of the Dean. The results

showed the disease in all in various stages of development, from the localized miliary tubercle in the lung tissue or lymphatic gland to generalized tuberculosis in the viscera and glands; Nos. 482, 487 and 492 presenting no post-mortem deviations from the average of the herd; merely localized tubercles in the lungs and lymphatic glands. The cows were all in fair flesh, considering the scarcity of pasture during the summer. Gestation had advanced from one to about eight months in most of the herd.

The peculiar deviations in the above temperatures led to a very careful ante as well as post-mortem inspection, but no further lesions were detected in either. It is regretted that circumstances were such as to prohibit the taking of the temperature in No. 482 for some days following the test. In the face of all the difficulties, however, the results indicate to a great degree how far the test may be relied upon in doubtful or irregular cases, and a study of the thermal lines in the chart made from the temperatures of the animals of the different barns certainly shows a debilitating influence at work somewhere in the system of animals from barn No. 1, due no doubt to the filthy conditions of the surroundings.

VETERINARY JOURNALISM.

BY W. H. DALRYMPLE, M. R. C. V. S., BATON ROUGE, LA.

Incorporated in the Report of the Committee on Intelligence and Education of the U. S. V. M. A., at Nashville, Tenn., Sept. 8, 1897.

Journalism, as an important medium of professional education, is a subject which should ever be kept prominently before the mind of each individual member of our profession. There is the possibility, or perhaps I ought to say tendency, on the part of many of us to forgetfulness of this fact, with the result that we are apt to retrogress rather than progress along the different lines of our professional work. There is no profession or business to-day that can expect to succeed without its periodical literature. Text-books, devoted to either branch of

medical science, are invaluable, in that they contain the fundamental facts, so to speak, on which practice is based, but in these days of such wonderful advancement, more especially perhaps in the department of medicine, a considerable portion of a text-book may be said to be out of date by the time it is placed upon the market. This would be an exceedingly unfortunate occurrence for the profession were it not that our journals come in to fill the void. The veterinarian at the present day who is not a subscriber to one or all of our journals, and perhaps to one or more of the European periodicals, is behind the times; and by being in such a position, is not only doing an injustice to himself, but to his profession.

I am of the opinion that the veterinarian should subscribe to a leading medical journal as well as to those of our own branch; it keeps him in touch with what is going on in the sister profession; and by having a little more extended information on the general subject of medicine, it not only adds to his own knowledge, but it gives him a better standing with the members of the medical profession with whom he may be brought into contact, when he is able to discuss intelligently up-to-date topics having a direct bearing upon their subject. I have always been an advocate of the veterinarian, when he has the opportunity, seeking the friendship and association of medical men. I think a great deal of the ignorance which prevails in certain sections of the country, with regard to our profession, would eventually be dispelled through the influence of the medical profession, especially if they had a more intimate knowledge of us and our professional work. It has been stated that out of the entire veterinary profession in the United States, only about one-third of its members subscribe to the professional journals. This may, at first sight, appear an unimportant matter, but when duly reflected upon, is in reality a serious state of affairs. At the present time, although the information contained in our journals is of inestimable value to those who subscribe to them, these monthly periodicals are conducted at great financial loss; and in fact one of them has had to be discontinued altogether

for lack of support. This want of appreciation on the part of a large portion of the profession is to be deplored, for the reason that it not only acts as a check to professional progress in the non-subscriber, but it deprives those who do subscribe, and who are anxious to keep up with the professional advancement of the day, of a great amount of valuable matter, which our journals are unable to avail themselves of for lack of the necessary support. In other words, it curtails the scope of journalistic work, thereby depriving the profession of a great amount of what might be termed its most needed sustenance, viz.: current, up-to-date literature gleaned from various sources throughout the professional world.

No better method, it seems to me, could possibly be devised to so rapidly advance the interests of the profession than that of well conducted journalism. "The power of the press" is a saying as true as it is trite; and there is no valid reason why the same should not be said of our professional press from both a social and a legislative standpoint. One of the most pleasing features which a profession such as ours ought to be able to afford is sociability. This can be largely cultivated through the medium of our journals. As a body, we frequently require legislation to obtain some needed reform. This could often be accomplished through the same channel—our press—more especially if it had the sympathy and support of a solid profession. There can be only one of two reasons why the veterinarian fails to give his support to the journals devoted to his profession, and necessarily to his individual benefit; and the first of these is a lack of interest in his own intellectual development—from a professional point of view—and in the progress and success of the profession, as such; or, that he has persuaded himself that he cannot afford \$3 a year for a journal, the value of which, to him, it would be extremely difficult to estimate.

If we expect to increase in strength as a profession, we must endeavor to increase and keep increasing the power of our journals in every department; and this can only be accomplished by the sympathy and hearty support of the profession as a whole.

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It is only by liberally contributing, as well as subscribing, that we can expect to obtain and maintain a high standard of excellence in our professional journalism. It is to be hoped that each succeeding meeting of the U. S. V. M. A. will have the effect of inspiring new life in the profession throughout the country, with regard to this important matter; and that each individual member will feel it to be his duty to lend his aid to the support of those professional periodicals, which are of such immense value, and which he has it within his power to greatly enhance.

REPORTS OF CASES.

EXTRACTS FROM THE CLINICAL RECORDS OF THE AMERICAN VETERINARY COLLEGE HOSPITAL.

By C. E. CLAYTON, D. V. S., Assistant Surgeon.

ANOTHER CASE OF RUPTURE OF THE CORACO-RADIALIS— OSTEO-POROSIS.

On Oct. 15th a gray gelding was given to us by Dr. Robertson for a clinic and post-mortem. His condition was as follows: Osteo-porosis, manifested by enlarged maxillary bones. The scapulæ, instead of being oblique, had assumed an horizontal direction, forming a right angle with the humeri, which seemed to retain their normal position. This situation of the scapulæ caused a lessening in height of the animal of about five inches and a corresponding increase in length. At times he would try to straighten up, and when doing so his attitude would become almost normal, and on sinking back again it seemed as if his body were falling downward and backward between his forelegs, so that the anterior extremity of the sternum would recede until it was eight or nine inches posterior to its normal position, leaving a very large depression between the humeri. The scapulo-humeral articulations were very much enlarged, but not so very painful. When pressure was applied upon them, from forwards back, the scapulo-humeral angle seemed to increase and the scapulæ temporarily resumed their oblique and natural position.

He was destroyed Oct. 9th, and a very careful post-mortem made.

The muscles were dissected away one at a time, and when the articulation was exposed, it was found that on the right side the coracoid process of the scapulæ had given way, together with an immense amount of inflammatory exudation, which was becoming organized and a fibrous union of the fracture was taking place; the tendinous portion of the coraco-radialis was undergoing fatty degeneration; the articular head of the humerus was ulcerated and of a pale blue color. On the left side the tendon of the coraco-radialis had ruptured about three-quarters of an inch from its attachment to the coracoid process and another partial rupture just after it passes over the bicipital groove; the same inflammatory exudation, partially organized, existed around this articulation, together with ulceration of the head of the humerus. On boiling the bones they exhibited the characteristic lesions of osteo-porosis.

On looking over the literature at my disposal, I found only one similar case to this, recorded by Dr. E. Nesbit, late House Surgeon to the Hospital Department of the American Veterinary College, in the October issue of the AMERICAN VETERINARY REVIEW, Vol. XV., where the question was put: "Were the rheumatoid symptoms presented related to the nature of the injury?" Prof. Möller, in his "Operative Surgery," refers to the Nesbit case without making allusion to what the cause of such trouble might be. It seems to us that both the Nesbit and this new case have probably but one cause, viz., the condition of osteo-porosis. True, it was only well marked and diagnosed in this last case, but if it was not positively established in Dr. Nesbit's, would it be improper to admit that the rheumatoid lameness characteristic of his patient was but symptomatic of osteo-porosis, even with the absence of maxillary lesions (supposing that they were looked for)?

TO ADD TO THE VALUE OF MEDIAN NEURECTOMY.

In reporting these cases it is not on account of any particular merit to be accorded them, but simply to add to the already accumulated evidence of results following this operation, and, therefore, strengthening its claim to recognition in those cases which have failed to answer to the usual form of treatment, such as firing and blistering, either one or more times, etc.

Case I.—A bay gelding, very lame on the walk, having a large bony deposit on the front and inside, as well as chronic

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tendinitis, on near foreleg. Operated on December 24, 1896, and when the animal was allowed to rise, walked and trotted sound.

Case II.—Bay gelding, very lame on the walk, having bony deposit at coronet, sidebones, and very much thickened tendons on near foreleg. Operated on January 8, 1897, and when allowed to rise, walked and trotted sound.

Case III.—Chestnut gelding, slightly lame when walking and very lame when trotting, having a splint the size of a large egg on the lower third of inside of the cannon, involving the tendons on the back of the cannon. Operated on May 4, 1897, and when allowed to rise and trotted the lameness which existed could only be detected by an experienced person.

Case IV.—Bay gelding, with intermittent lameness for a period of two years and having a splint extending from the inside to the outside of the leg and close to the knee. Operated on July 20, 1897, and when allowed to rise trotted sound.

Case V.—Bay gelding, destined for dissection purposes and exceedingly lame even when walking, having bony growth at fetlock, navicular disease, contracted and swollen tendons. Operated on some time in January, 1897. When allowed to rise, showed a slight trace of lameness on the trot; he was then destroyed.

The first three cases were ordinary work horses, too lame to work even at a walking pace; the fourth was a valuable coach horse. In these four there was some swelling and lameness the following day or two, which gradually subsided in the course of ten to fourteen days. They were put to work and have worked constantly up to the time of writing and showed no signs of the return of lameness. The fourth case, which on account of his blemish and peculiar form of lameness, was, so to speak, worthless before the operation, has been since sold at a very high figure.

EPILEPTIFORM FITS DUE TO PARASITES.

On October 15th, a collie pup was brought to the hospital suffering with epileptiform fits; two hours later another one was brought with the same symptoms, the owner saying that they were the only ones left out of a litter of seven, the five which had previously died having presented the same symptoms as the two which were brought to the hospital. They were placed under potassium bromide to quiet the nervous excitement. As soon as this was accomplished, castor oil was administered.

The one which was taken in first died the same night, and on post-mortem the following morning ninety-four ascarides (*A. Marginata*) were found between the pharynx and appendix, and in some places they were gathered together in masses large enough to distend the intestine to about two or three times its normal diameter. The other one died the following afternoon, and on post-mortem fifty-nine worms were found of the same variety and in the same localities.

The owner having two more dead ones at home, I requested that they be sent to me, as my curiosity was fully aroused. Their post-mortems revealed sixty-one in one and sixty-two in the other. A like condition probably existed in the other three which I did not see.

In mentioning these cases, it is not on account of the rarity of finding parasites in the gastro-intestinal tract, giving rise to the symptoms observed, but for the great number found in all of the pups which I had the opportunity to examine after death; also their being all of the same litter and only *eight weeks old*. I have held a great number of post-mortems, but have never found parasites in such great quantities.

THE USE OF ESERINE IN PARTURIENT APOPLEXY.*

By W. E. McCRAV, Oil City, Pa.

I desire to call your attention to four cases of parturient apoplexy that I have attended within the last six months. As you are all familiar with the pathology and symptoms of this disease I will not enter into details.

Case No. 1.—A thoroughbred Jersey cow had her calf at 8 o'clock one evening and went down about 3 o'clock the following morning. I saw her about 9 o'clock the same morning. This was a well marked case with all the symptoms prominent, paralysis of the posterior extremities and contraction of the muscles of the cervical region, with head crooked tight to flank, emitting a grunt at every respiration. The following line of treatment was adopted; a purgative was administered, a mustard-plaster applied to the back, hot water injections, and ice applied to the head. Stimulants were given every two hours. About five o'clock in the evening of the same day I was called again. The animal was undoubtedly no better, but coma more pronounced. I gave her one grain of eserine sulphate intravenous injection, and applied the pump. Inside of twenty minutes

* Read before the Pennsylvania State Veterinary Medical Association, September, 1897.

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* Read before the Pennsylvania State Veterinary Medical Association, Oct. 21, 1897.

the tension of the cervical muscles relaxed and she showed prominent symptoms of the physiological actions of this drug. She had two evacuations of hard fæces and then seemed to rest easier with head erect. The following morning I gave her one half grain more of the drug and by noon she was up on her feet. The subordinate treatment consisted of stimulants with *nuxvomica* in small doses.

Case No. 2.—A grade Durham that went down some time the second day after calving. Was seen by me about six hours after going down. I at once administered one and one-quarter grains of eserine, applied the pump. She responded to the action of the drug. I also gave her a purgative, ordered stimulants every hour. She was up on her feet in six hours and eventually made a good recovery.

Case No. 3.—An old grade Jersey. Had gone down the third day after calving and had been down twenty four hours when seen by me. The owner said he had given her "two quarts of crude oil and two pounds of salts." I gave her treatment the same as in other cases and she was up on her feet the next morning and lived six days. She then died with mechanical pneumonia due to to the administration of the oil and salts.

Case No. 4.—A high bred Jersey. Had her calf in the morning. I was called that evening, the owner saying that "something ailed the cow." She was down by the time I got to the field. I immediately gave her treatment as heretofore mentioned. That night she lay in the rain. I called the next morning, gave her the second injection and hauled her to the barn on a stone-boat. About eleven o'clock that morning she rose to her feet, gained strength during the day and when I made my last visit that evening she was up and the calf was sucking.

In bringing these cases to your notice I do not wish to be understood as advancing any new ideas, but simply to give you my experience in the action of this drug in the treatment of parturient apoplexy.

PUNCTURED WOUND OF THE BREAST, WITH A PECULIAR COMPLICATION.*

By CHARLES S. ATCHISON, Student, Brooklyn, N. Y.

On July 12 last, a gray gelding, eight years old, about sixteen hands high, was admitted to Dr. Berns' infirmary, suffering from quite an extensive punctured wound of the breast, and the

*Read before the Veterinary Medical Association of the American Veterinary College, Oct. 21, 1897.

external opening of which was about on a line with the scapulo-humeral articulation, the tract extending downwards and backwards for fully sixteen inches. Owing to the nature of the injury, suturing by any of the various methods employed was quite out of the question; consequently the only thing to be done was to assist nature in doing her work by treating the wound antiseptically. This was done by daily irrigations with a solution of carbolic acid of the ordinary strength, but in spite of my care the granulating process did not progress either rapidly or favorably. Nevertheless, I kept up the treatment, confident that antiseptics would in the end win the battle.

About fourteen days after being admitted, a large swelling made its appearance upon the animal's side; this swelling was eight inches in diameter, and was situated over the tenth rib, about twelve inches below the vertebral column, and was very hot and painful upon pressure. To this swelling I had hot fomentations applied at regular intervals during the day for two days, at the end of which time it appeared as a large abscess, which I opened, and from which just seventeen ounces of pus escaped.

Upon exploring the resulting cavity with my finger, I felt something which I at first thought was a portion of a fractured rib, but upon its extraction it proved to be a piece of leather three inches long and three-quarters of an inch wide. At first I was at a loss to account for the presence of this piece of leather in such an unaccustomed place, but the circumstances of the accident furnished a clue, and it proved to be a piece of the collar which the horse wore at the time of the accident, it having entered with the shaft in the latter's course.

After the removal of this piece of leather, I probed the cavity and found a tract running forward, which my longest probe failed to explore fully. Realizing that "necessity is the mother of invention," I made a probe of a piece of bale-wire and by its aid ascertained that the tract led forward and downward toward the bottom of the opening made by the shaft; seeing this, I introduced another probe into the original wound and discovered what I had already suspected—that the two tracts were continuous.

After this the wound healed as readily as could be expected, considering the poor drainage afforded, and the animal was discharged.

But certain questions are still unsettled in my mind concerning the migration of that piece of leather. In the first

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place, why did it move at all, and, in the second, why did it not follow the laws of gravitation instead of pursuing an upward course and terminating fully six inches above the opening of the original wound?

INOCULATIONS AGAINST RINDERPEST.

Through the courtesy of Dr. William Sheppard, of Sheepshead Bay, L. I., we have received a copy of the *Umtata* (Cape Colony) *Herald* of Oct. 2, giving an account of the meeting of the Rinderpest Commission, at which Dr. Gray, Government Veterinary Surgeon, explained the details of inoculations against that scourge. Dr. Gray was formerly assistant to Dr. Sheppard, and went to South Africa some six or seven years ago. We reproduce the salient points of his report to the Commission:

"Dr. Gray said that as it took from six to eight weeks to fortify animals up to the point of obtaining serum from them, he had arranged to get a supply from Kimberly sufficient he hoped to keep them going in the meantime. He then proceeded to state the method of fortifying animals so that serum could be obtained from them, and this process as given in the *Government Gazette* of 24th Sept. is as follows:—A salted animal is obtained, either one naturally salted or one which has been given the rinderpest after having been slightly immunized. As soon as the animal has recovered from the disease, it is injected with 100 c.c. of virulent blood. This generally produces a febrile reaction. As soon as the reaction is over, 200 c.c. are injected, and the dose is thereafter increased to 500, 1000, 2000, 3000 and 4000 c.c. at once, always waiting for the reaction from the last inoculation to subside before administering the blood. Dr. Gray continuing said that from such a salted animal 30 c.c. of defibrinated blood or 20 c.c. of serum was an effective dose for cattle in which the first symptoms of disease had just appeared, and the best results were always obtained when each animal in a herd was inoculated just when the first signs of rinderpest were visible. It was, he said, immaterial where the injection was made provided it was in a place where there was loose flesh. Great care had to be taken in inoculating the animals which were being prepared for the purpose of supplying serum, as the injection of doses up to 3000 c.c. into one place was inclined to produce abscess or such-like irritation.

"The Chairman then read to the meeting a large portion of a report by Drs. Turner and Kolle published in the *Government Gazette*. In the course of this report Drs. Turner and Kolle state, that during their investigations, in continuation of Dr. Koch's experiments, they had devoted special attention to the possibility of procuring an efficient serum. Their experiments had been carried on both with defibrinated blood and serum and the action of these two fluids they found was precisely similar. Serum which is defibrinated blood minus the red corpuscles is made by allowing the blood to coagulate and the clot to contract. It can with ordinary care be prepared so that with the addition of 0.5 per cent. of phenol it may be bottled and kept for a long time. As an illustration of the way in which serum may be expected to act in infected herds, they allowed 47 animals to take the disease spontaneously. The serum was injected at various periods after the commencement of the fever, with the following results:

Day of fever when Inoculated.	No. Inoc'd.	No. Alive.	No. Dead.
1st day	11	11	0
2d "	4	4	0
3d "	7	5	2
4th "	9	4	5
5th "	8	0	8
6th "	5	1	4
7th "	2	1	1
9th "	1	1	0
	—	—	—
	47	27	20

"The serum, or defibrinated blood, can be made to give a long immunity if it is used after the animal has become infected, or, if the animal be purposely infected after the use of the blood or serum. In regard to the question of a process to give a prolonged immunity to animals not already infected with rinderpest, the report goes on to say that serum and not defibrinated blood must be used. The experiments carried out show that it is necessary to insure actual infection. The herd in which several cattle have died after serum inoculation has usually been found to be in a more satisfactory state than the herd in which none have died. The object, therefore, is to insure infection of as severe a character as possible, and at the same time to administer the serum in such a dose as to insure the safety of the animal. This object may be obtained by injecting 1 c.c. of vir-

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ulent blood on one side of the animal and immediately after 5, 10, 20 c.c. of serum on the other side. The animal thus treated suffers from a modified form of the disease, and is salted. The following table gives the result of an experiment made upon 29 animals:

No. of Animals.	Dose of Serum.	No. died.
11	20 c.c.	1
12	10 c.c.	8
6	5 c.c.	6

"In regard to the treatment of herds already inoculated with Koch's bile, and in which the disease usually, although not invariably, appears again after a short time, Drs. Turner and Kolle state that these beasts respond readily to the action of serum, but that they must be sick at the time the serum is injected, otherwise they do not salt."

FOOT-AND-MOUTH DISEASE.

Loeffler and Frosch (*Deutsche Medicinische Wochenschrift*, September 23, 1897, p. 617), constituting a commission appointed to investigate foot-and-mouth disease, report the following summary of the conclusions reached by them: (1) All of the bacteria hitherto described as the exciting cause of this disease have been accidental associations. The disease can be induced by inoculation with sterile lymph obtained from the vesicles, which contains morphotic elements of various kind. Protozoa have not been demonstrated as the causative agents. (2) Beef and swine have been also shown experimentally to be especially susceptible to the disease. Sheep and goats could not be infected artificially at first, as well as dogs, rabbits, guinea-pigs, ordinary mice, field-mice, and fowl. (3) The most certain mode of infection consists in the injection into the circulation of lymph obtained from vesicles. Infection could be induced also by injection of such lymph into the abdominal cavity and into the muscles, as well as by its introduction into the mucous membrane of the mouth previously injured by puncture. Uncertain results followed subcutaneous and cutaneous inoculation. In animals inoculated by intravenous injection vesicles appeared first in the mouth, and in milch cows upon the udders, after the lapse of from one to three days—in accordance with the amount and virulence of the lymph—in conjunction with febrile manifestations, and one or two days later vesicles appeared, first upon the extremities. Both sets of vesicles are

thus to be attributed to virus circulating in the blood and not to direct infection from the skin. With the development of the vesicles the virus disappears from the circulation. (4) To effect inoculation with certainty, one-five-thousandth of a cubic centimetre of fresh lymph was sufficient. Smaller quantities up to one-twenty-thousandth cubic centimetre were uncertain in their effects, and still smaller quantities were innocuous. (5) The lymph was rendered innocuous when heated to 37° C. for twelve hours, or to 70° C. for half an hour, and also on drying for twenty-four hours at summer temperature. Preserved in refrigerators, the lymph inclosed within capillary tubes retained its virulence for fourteen days, at times even longer. Individual germs proved capable of continued existence for eight or nine weeks. Large quantities of lymph were necessary to induce infection. (6) In opposition to prevailing views it was demonstrated that immunity was conferred upon infected animals two or three weeks after recovery from an attack. On the one hand some animals are naturally immune, while on the other hand others are extremely susceptible. The latter are not rendered immune by a single attack, but more fully so by a second. The blood of immunized animals contains substances which when mixed with fresh lymph seem capable of neutralizing the effects of the latter in susceptible animals. (7) Beef and swine can be immunized artificially by means of injections of lymph warmed until its infectiousness is removed, as well as by injection of mixtures of lymph and blood from immune animals. The majority of animals were rendered immune by a single injection, which apparently induced no bad effects. (8) It thus appears scientifically demonstrated that foot-and-mouth disease can be successfully treated by means of protective inoculation. —(*Médical Record.*)

EXTRACTS FROM EXCHANGES.

GERMAN REVIEW.

By W. V. BIESER, D. V. S., New York City.

INTRAVENOUS INJECTION OF NORMAL SALT SOLUTION IN TOXÆMIAS AND EXTENSIVE HÆMORRHAGES.—In the treatment of toxæmias either the result of specific bacterial infection or other poisons, and in excessive hæmorrhages the author recommends the intravenous or subcutaneous use of normal salt solu-

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tion. The best results were obtained in collapse following severe hæmorrhage in that the normal salt solution or artificial serum took the place of the blood lost and excited a hæmostatic effect. Also in septic infections and in toxæmias it is of value, as can be seen in the following case: A Clydesdale mare, weighing 1300 pounds, gave birth to a dead foal and developed septic metritis. S. abstracted eight quarts of blood with slight improvement in the symptoms. The pulse, until now tense in character, became soft. Next morning the symptoms became much worse, pulse 100, fever high. Outside of local application of weak creoline solution and of potassium iodide salve to the uterus, S. injected for a period of 45 minutes salt solution into the jugular. The pulse that day fell to 80, temperature remained the same, and the patient *voided three or four times clear colored urine*. Next day injections were repeated. During this injection a little air entered the jugular through carelessness of author, increasing pulse rate to 100, causing patient to lie down in pain after a period of ten minutes and breathe more rapidly as well as to break out in profuse perspiration. This unlucky episode, however, was unaccompanied by anything more serious, the disquieting symptoms subsiding again in a few hours. After two days all signs of metritis had vanished. The solution used consisted of a tablespoonful of common salt to a quart of boiled water. Infusion of normal salt solution is indicated in life-threatening hæmorrhages, in septic or uræmic conditions present in infectious diseases and in toxæmias (tetanus, hæmoglobinuria, strychnine poisoning). In poisonings the intravenous injection of salt solution should always precede venesection.—(*Berl. Thierärzt. Woch.*)

CLEFT PALATE IN A STALLION.—A two-year-old stallion after eating always regurgitated some of his fodder through the nostrils. A cleft 9 c. m. in the hard palate showed itself; the lower border of the septum nasi could be felt in the centre of the cleft which was 4 c. m. wide. Mother and father had normal palates.—(*Berl. Thierärzt. Woch.*)

PASSAGE OF A TRACHEOTOMY TUBE INTO THE TRACHEA.—A rectangularly bent tube, that had been temporarily inserted into the trachea of a horse suffering from pharyngo-laryngitis suddenly slipped into the trachea and threatened to suffocate the animal. As the tube was out of the reach of the finger, a second incision was made lower down, and the finger inserted, when it came against the tube, which was forced against the new wound by the effort of coughing induced by the introduc-

tion of the finger, but the tube could only be removed by strongly extending the neck backwards for some time. Hot water checked the hæmorrhage.—(*Deutsche Thierärzt. Woch.*)

LIPOMA IN A TERRIER.—W. got an order to poison a terrier. After death he noticed a fluctuating swelling in the abdomen which he nevertheless diagnosticated as a tumor. On autopsy he found a tumor, originating in the mesentery and filling up the greater part of the abdomen. It was surrounded by a very thin capsule which separated the tumor effectually from the surrounding organs. The tumor had a pedicle; the capsule was well supplied with capillaries. Parts of the tumor had undergone mucoid degeneration. The dog weighed 20 lbs.; the lipoma $4\frac{3}{4}$ lbs.—(*Deutsche Thierzärt. Woch.*)

URÆMIA IN A DOG.—A three-year-old dog urinated with difficulty, collapse was present, surface cold, and the belly prominent from distention of the bladder. It was impossible to introduce a sound into the bladder. An incision into the perineum and the insertion of a strong catheter into the bladder gave vent to issuance of 4 litres of bloody, dark-colored urine. Improvement set in, the coma subsiding as a result of the urinary retention. The author found three calculi, which were removed by another incision. Of the two wounds one healed quickly, the urethral incision, however, remained fistulous and after two months urination was as difficult as ever. A sound could with difficulty be passed through the fistula, but after introduction a fracture of the end of the penis bone could be detected, one portion of which had become detached and needed removal. Beyond this the sound detected in the depth of the urethral fistula a cicatrization of the urethra. The only thing was to incise this with scissors and remove the detached bone. This was done, no more calculi found, and after retraction of the wound a cure resulted. The urine thereafter issued from the fistulous opening behind the os penis.—(*Deutsche Thierzärt. Woch.*)

ENGLISH REVIEW.

INTERESTING FRACTURES.—In the *Veterinary Record* of September, we find accounts of fractures of the ossa suffraginis and of the pelvic bone. In the first the injury to the pasteron was such that sixty separate pieces of bone were counted after boiling. This might give the impression that the cause of the injury had been very violent, but such was not the case. The animal was merely exercised; getting frightened, he made

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a sudden start, and then stopped dead lame. The age of the animal (15 years) and the peculiar formation of the bone may account for the suddenness of the fracture, but not for the large number of fragments of bone. In the second case, Mr. Irving speaks of a well-bred pony which became lame while playing polo, when being turned round at a gallop. At the post-mortem two fractures of the pelvis were found, which were evidently not of the same date, one of them showing evidences of beginning repair, and the surfaces of the bones smooth and bright, with an ivory appearance. In the more recent injury the lesions were fresher, though the bones were somewhat polished, the horse being destroyed only thirty-six hours after the accident. The presence of the first fracture had not been suspected as the animal, though lame, had apparently got over his lameness some short time before, and his trouble had been considered trifling. When he resumed work, the first fracture certainly interfered with his rapid motion, and may have been the indirect cause of the second injury.

TUBERCULOSIS IN PIGS.—In one of the sections of Mr. Cope's report, the *Veterinary Record* informs us that during the year 1896, 13,221 viscera were observed at the post-mortem examinations of swine made that year, and that out of that whole number 159 cases of tuberculosis were found. This, it is claimed, represents a fair proportion of the existence of the disease among swine, *i. e.*, rather over one per cent. A very peculiar observation is also recorded: It is that, though the chief method of transmission from pig to pig is certainly through the common feeding trough, by ingestion, yet the disease was rarely found in any other organ than the lungs and spleen.

TETANUS AND ANTI-TETANIC SERUM.—Notwithstanding all that has been written on that question and the proven evidence shown by French authorities of the comparatively useless treatment of tetanus by antitoxine, the results obtained by English veterinarians seem to be altogether different from those observed on the Continent; and cases of recovery by the anti-tetanic serum are recorded now and again in our English exchanges. The October issues of the *Veterinary Record* contain several cases where recovery is attributed to that mode of treatment and which was brought on in a comparatively very short time. It must be remembered that while Nocard denies any curative power to anti-tetanic injections, he, however, does not deny the propriety of their uses—they may not be beneficial, but certainly are harmless to the course of the disease, and may

be considered, as Nocard says, the best method of treatment to which one can have recourse.

A HAT-PIN IN THE ŒSOPHAGUS.—Mr. A. Brookbanks had this peculiar case in a kitten which he had castrated some three months before, and which was brought back to him with the report that he could not eat. The little fellow was lame on the right fore leg and had on that side of the neck a swelling, which on being opened revealed the presence of a sharp point. This was grasped with forceps and carefully drawn out. It proved to be a lady's hat-pin (six inches long) which had been swallowed and had reached the upper part of the neck and made its way through the œsophagus to the exterior by the expulsive efforts of the kitten.—(*Veterinary Record*.)

LAMENESS DUE TO HYPERTROPHY OF THE LOWER END OF THE SMALL METACARPAL BONES.—This cause of lameness has already been observed on several occasions by Veterinarian J. A. Nunn, and in confirmation of the correctness of his observation, records another case, in which the lameness was relieved by the simple operation of excision of the hypertrophied bone. Mr. F. E. Place, however, records also cases of lameness due to the same cause, but, instead of the surgical interference of osteotomy, has obtained satisfactory results by the application of pyropuncture, blisters and rest. By this treatment he has also obtained a reduction in the size of the hypertrophied bone in one case.—(*Veterinary Record*.)

BIBLIOGRAPHY.

PROCEEDINGS OF THE UNITED STATES VETERINARY MEDICAL ASSOCIATION, Session, 1897. Edited by the Publication Committee, W. L. Williams, Chairman, Cornell University, Ithaca, N. Y. Kansas City: Printed for the Association.

We have received from Secretary Stewart a copy of the above work, and a careful perusal of its literary and typographical construction conveys a very gratifying impression of the work of the committee, especially when one is familiar with the obstacles which had to be surmounted and the record-breaking velocity with which it reached the hands of the members. When the Chairman announced in his annual report that he would have the "Proceedings" ready for delivery within forty-five days after the close of the meeting he did not then know that such a task would devolve upon his own unaided shoulders, but when the Convention was in session he found that the Secretary of the association, who is a member of the Publication

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Committee, was heels-over-head in the business of the association, and the only other member was upon his back with urgent indisposition. Having given his word that the "Proceedings" would be ready for the printer a few hours after the close of the meeting, he set about the gigantic task single-handed, and, although he had to forego the profit and pleasure of participating in the programme, eschew the social pleasure of the Exposition City, curtail his intercourse with his friends to a nod of the head, and write like a steam engine in his room to the strains of sweet music wafted up from the banquet hall, he stuck to his self-imposed task with a heroism seldom seen in associational work, and being ably seconded later by the indefatigable Secretary and prompt printers, he has been enabled to fulfil his promise to the letter. Even with such dispatch, and with a direct saving to the association of thirty cents on each page of the book, it is not a "rush job," but is in every way as handsome and complete as any of its predecessors. The price has been brought down this year to \$1.03 per page, against \$1.33 last year, and \$1.60 and upwards in previous years. It was ready for delivery in forty-five days after the meeting, against one hundred and twenty days last year, and from six to eighteen months in previous years.

It contains a list of the officers for 1896-97, the committees, resident State secretaries, officers and committees for 1897-98, a list of the regular members (numbering 312), those elected at Nashville (24), honorary members (24), the welcoming addresses and the response, the President's address, members and visitors present, reports of the various sessions of the Executive Committee, Finance Committee, Secretary, Publication Committee, Intelligence and Education, Diseases, Army Legislation, the various State Secretaries, and the Proceedings in detail of each day's session, with the papers and discussions in full. Aside from this, there is incorporated in this year's volume the deliberations of the Association of Veterinary Faculties of North America, and the proceedings of the first annual meeting of the United States Experiment Station Veterinary Association, with the papers presented at each. The whole is completed with a very comprehensive and well-arranged "Index," enabling the reader to find at a glance any topic he may be interested in.

The association may well be congratulated on the energy, economy, and completeness of the work performed by its Publication Committee of 1897, and the chairman of that committee is entitled to much consideration for his devotion to its interest

in the work which he accomplished against such odds. For the session of 1898 the committee has been increased to five by the addition of Profs. Niles and Bell, and it is expected that by this distribution of labor the burden may be lightened and the work expedited.

SUPPLEMENT AU NOUVEAU DICTIONNAIRE PRATIQUE DE MÉDECINE, CHIRURGIE ET HYGIÈNE VÉTÉRINAIRE (Supplement to the New Practical Dictionary of Veterinary Medicine, Surgery and Hygiene,) By Profs. A. Sanson and L. Trasbot. Asselin & Houzeau, Paris.

The first volume of the dictionary, generally called "the Bouley Dictionary," was published in 1862, and the work was not entirely completed until two or three years ago. During these thirty odd years veterinary medicine has made immense progress, and, to make that great encyclopedia as valuable as it was intended by the first authors, the necessity of a supplementary part imposed itself. In fact, it was already in project at the time of the issue of the first part of the book.

Profs. A. Sanson and L. Trasbot have undertaken the work, and this first volume shows that when it is completed the supplement will be well worthy of the original work.

The names of the collaborators, Profs. Cadiot, Kaufman, Lucet, Neumann, Peuch, Sanson, and Trasbot, are by themselves sufficient authorities to prove how valuable the contents of this part of the supplement are.

Covering material included between the letters A and D, most interesting articles are treated and brought up to date with the progress made in science, and among them are those of antiseptic and aseptic and of criptorchid, by Cadiot; the diphtheria of fowls, by Lucet; actinomycosis, botriomycosis, cachexia, diastomatosis, by Neumann; anthrax, by Peuch; carcinoma, by Trasbot. The largest part of the book is also filled by numerous articles from the pen of Professor Sanson on various subjects related to zoötechny and treating principally of many of the various breeds of horses, cattle, sheep and swine of France and Europe.

There is no doubt that this supplement will prove a most important addition to the dictionary of Bouley; but it must be hoped that its completion will not demand as long time as the original work did.

A TEXT-BOOK OF HORSE-SHOEING. By A. Lungwitz. Translated from the German Edition by Prof. J. W. Adams. Published by J. B. Lippincott Co., Philadelphia.

A work that has already reached its eighth edition needs scarcely a review or a notice as to its value, but what with us is

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worthy of appreciation is its introduction in American veterinary literature by an American veterinarian, who, though yet young, has already made his mark in the performance of the duties of his profession. The work is divided into three parts. In the first the anatomy of the foot is considered, with its relations to the entire limb. In the second the shoeing of healthy hoofs, with some of the peculiarities of action and their winter shoeing. In the third the shoeing of defective hoofs, some of the diseases and injuries of the hoof, and the effects of shoeing. This chapter concludes with a few remarks on the shoeing of mules, asses and oxen. One hundred and forty-one plates illustrate the text.

At this time, when the art of horse-shoeing is receiving such attention, when schools of farriery are being established all over the country, the translation of Professor Adams comes just at the right point. The author deserves the thanks of the profession for his efforts, and our sincere wishes for the success of his work.

EXERCISES IN EQUINE SURGERY. By Professor P. J. Cadiot (Alfort), translated by Prof. A. W. Bitting, and edited by A. Liautard, M.D., V.M. With 56 Illustrations. W. R. Jenkins, New York City.

Another triumph for French veterinary surgery is the publication and the success obtained among English readers of the translation of Dr. Bitting of the "Exercises of Equine Surgery" of Cadiot (Alfort). Students of American schools, those of Canada, those of England, and surely also all the veterinarians who practice principally surgery, will find in it information and suggestions of great importance, which, if ignored, might give rise to great disappointments and fatal terminations where confident results were expected from operations.

DISEASES OF SWINE. Written as a Text-Book for the Veterinary Surgeon, Student, and Swine Grower. By D. McIntosh, V.S., Professor of Veterinary Science in the University of Illinois, author of "Diseases of Horses and Cattle."

The above entitled work has been received from the author, and proves to be a neatly printed and bound volume of 230 pages, illustrated by a number of wood-cuts, and divided into twenty-four chapters. The author in his preface speaks of the absolute absence of literature upon the general diseases of the pig, and his aim has been to supply this want. He says, "the subjects dealt with are based on science and confirmed by experience, so that the reader will not lose time in reading theories which are not confirmed by facts."

CORRESPONDENCE.

AS TO THE FREE BIOLOGICAL PRODUCTS SUPPLIED BY THE
GOVERNMENT.

CHICAGO, ILL., Nov. 4, 1897.

Editors American Veterinary Review :

DEAR SIRs :—I beg the courtesy of your pages to say that one of the difficulties we have to contend with is that not only the Federal Government, but also some State, county and city authorities are manufacturing and supplying, *gratis* or otherwise, tuberculin and other biological products. Though this may be constitutional to a certain extent, yet the practice is undoubtedly greatly abused ; it considerably interferes, not only with commercial enterprise, but with private rights. Why should one veterinarian obtain, for instance, his tuberculin *gratis*, while another has to pay for it? I believe that the original idea of the Government in supplying tuberculin was to thoroughly test it as a diagnostic agent. But as this question has long since been settled in favor of the preparation, I see no reason why the Government should continue in this extraordinary course. The same remarks apply to black leg vaccine. This preparation has for more than ten years past been recognized as a practically absolute preventive of the disease in question, and it has during that time been well known as a commercial product prepared by the most experienced men in the world and placed on the European and American markets by responsible firms. The Government is now to some extent supplying black leg vaccine for so-called experimental purposes when these experiments were made long ago and the vaccine is already well known in this country. I know of no reason why the Government should supply biological products more than horses or houses, and shall shortly have something further to say on this subject, but I think it is one that should be taken up by the press. I hold myself at your disposal for any further information that you may desire.

Yours truly,

HAROLD SORBY,

Manager Pasteur Vaccine Co., Limited.

CLASS OFFICERS OF THE A. V. C.—At the organization meeting of the class of '98 of the American Veterinary College, held in the lecture room on October 21st, the following gentlemen were elected officers: President, Mr. Weisbrod; Vice-President, Mr. Atchison; Secretary, Mr. Braisted; Treasurer, Mr. Morris; Historian, Mr. Walker.

OBITUARY.

FINLAY DUN, M. R. C. V. S.—This widely-known veterinarian died recently at his home, Gorgie House, Edinburgh, Scotland, aged 67 years, from the effects of a stroke of apoplexy received last February. He was chiefly known to the veterinary profession of America as the author of the text-book on materia medica, "Veterinary Medicines: Their Actions and Uses," first published in 1854 and passed through eight editions, he being recently engaged in preparing a ninth. It has been for many years the text-book of both the English and American schools. He at one time visited America as special commissioner of the *London Times* and wrote a series of articles entitled "Food and Farming," which were afterwards produced in book form. He was a Fellow of the Royal College of Veterinary Surgeons, and was for years an examiner for the diploma of the Highland and Agricultural Society and of the Royal College of Veterinary Surgeons, as well as for the fellowship of the last-named institution.

SOCIETY MEETINGS.

PENNSYLVANIA STATE VETERINARY MEDICAL ASSOCIATION.

The semi-annual session was convened in Franklin, Venango County, on Tuesday, September 21. The commodious and attractive apartments situated over 1249-1251 Liberty Street, and known as the A. O. U. W. Hall, had been selected by the local reception committee. Here was held one of the most interesting and successful meetings experienced by the association in the history of its autumnal sessions. An incident occurred in the early morning that proved a delightful experience to the attending members. The association received an invitation to visit the Prospect Hill stock farm of Messrs. Miller and Sibley. Mr. E. H. Sibley gave inspiration to his invitation by sending two elegant four-hands to carry the guests from the Exchange Hotel to the farm. To those who were strangers in this unique and prosperous niche in the great oil-regions, a tally-ho drive through a section whose hillsides are dotted with scores of derricks over oil-wells was a novel experience. The enjoyment to all was as keen as the morning was beautiful, and the scenery picturesque and inspiring. The inspection of the trotting-stock and stud, also the magnificent herd of high-class Jersey cattle, greatly interested

the veterinarians, who are lovers of quality in stock, and who appreciate the beauty and value of hygienic surroundings. Much praise and satisfaction were expressed with what was seen, and many thanks were tendered Mr. Sibley for his attentive courtesy.

Returning from the farms, the association was called to order at 11.30 A. M., by the President, James B. Rayner. On motion the roll-call was dispensed with, and the Recording Secretary at once proceeded to read the minutes of the previous meeting, which were approved as corrected.

The President then delivered his address. He thanked the association for the honor conferred by electing him as its presiding officer for the ensuing year. He spoke with enthusiasm upon the value to the profession of veterinary associations. He showed them to be powerful educators, and the means of stimulating the best elements in, and elevating the character of the profession. He spoke of the value of fraternal relationship; the additional strength given the State and national associations by the local ones. He said that a closer affiliation of associations is necessary to give the best support to the important questions upon which we deliberate and aim to influence legislation. Advancement is the result of personal interest, no less in the history of veterinary professional work than along other lines, and that if each member would contribute papers, reports and personally work for the interest of the association, the latter is sure to be successful. The President pointed with pride to the position of the veterinary student of to-day, contrasted with said position thirty years ago. He had witnessed with delight the astonishing progress in the growth of the profession, and in the opportunities afforded by colleges for securing a veterinary education. He said, "you are so much better prepared, so much better provided for than we who have preceded you, that we can pass from the duties that have been ours with strong faith that you will carry on the good work. As one with long experience I can say that though the duties are hard at times, they are pleasant. They are worthy of your best efforts. With an honest purpose to do right and earnest labor for those who place their confidence in you, you will be successful and will shed honor on your chosen profession."

At the close of his address, the President introduced the Mayor of Franklin, George B. Jobson, V. S., who in a happy strain spoke cordial words of welcome. The Mayor dwelt upon the progress and status of our profession; of its age in the

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world ; its prestige ; the immense value the study of comparative medicine had been to the progress of human medicine on essential problems ; its conspicuous place as the guardian of the health of the people in being able to provide a healthful meat and milk supply as well as to protect the community from the ravages of certain contagious diseases. He complimented the association on its good work ; on the creation of the State Veterinary Examiners Board to influence higher education and take the profession out of the hands of empirics ; on the State Live Stock Sanitary Board to promote the health of the people of this great commonwealth and to conserve the moneyed interest in live stock in our State. The Mayor made each member feel that he was at home in Franklin by his hearty greeting.

Following the Mayor's address, Dr. W. Horace Hoskins made fitting remarks upon the character and usefulness of our late member, Dr. John R. Hart, and recommended that a committee be appointed to draft resolutions of respect and condolence. The Chairman then appointed Drs. Hoskins, Pearson, and T. B. Rayner to constitute said committee.

Election of officers being next in order, Dr. Hoskins presented the name of Dr. Francis Bridge for treasurer to fill the vacancy caused by the death of Dr. Hart. On motion Dr. Bridge was unanimously elected.

The following names were proposed for membership : Henry Bowers, V. M. D., Philadelphia ; Samuel J. Swift, D. V. S., Franklin, Pa. ; W. E. McCray, V. S., Oil City ; Harry Emery, D. V. S., Pittsburg ; David Waugh, D. V. S., Pittsburg ; E. C. Porter, V. S., Newcastle ; E. E. Bittles, V. S., Newcastle.

To fill vacancies on the Board of Trustees, the Chairman appointed Drs. Hoffman, Michener, Rectenwald, and James A. Waugh. Following a short intermission the chairman of said board reported favorably upon all the applications for membership. The Board in its report considered the relation to this association of members who move to other States to practice their profession. While the Board holds that such members may retain their membership if they so desire, it urgently recommends them to ally themselves with the interests of the association of the State in which they practice. The above recommendation was adopted.

The following resolutions were adopted by the association :

WHEREAS, Of the last three meetings of the U. S. V. M. A., two have been held in the West, *i.e.*, in Des Moines and Nashville, and the third at Buffalo, three hundred and fifty miles from the seaboard ; and

WHEREAS, The veterinary profession in the east has been somewhat neglected and

has suffered from such oversight, and needs the stimulation and cohesive influence of a meeting of the National Association ; be it

Resolved, That the Pennsylvania State Veterinary Medical Association earnestly petitions the President and officers and other members of the Executive Committee of the U. S. V. M. A. to favor the holding of the next meeting at Boston, and express the belief that it would be a serious error to hold three of four meetings a long distance from the centre of membership of the Association, and especially to select a meeting-place in a territory that has been occupied within three years.

Following the discussion and adoption of this report, the Board of Trustees having nothing further, on motion the association instructed the Secretary to cast a ballot for the new members, who were then introduced by Dr. Jobson.

Corresponding Secretary's Report.—In his written report, after showing his expense account, the Secretary dwelt upon his correspondence not only with each member of the association, but with every honorable veterinarian in this State and the adjoining counties in New York and Ohio. The number of replies and inquiries from them serves to indicate the interest awakened by association work among new members, and its wholesome influence upon the great body of professional men in veterinary medicine. A number of complaints of illegal practice carried on in numerous ways and various ruses have been reported. These have been turned over to the State Board of Examiners, under whose jurisdiction such matters come.

On motion made by Dr. Rhoads and carried, a committee of two was appointed to examine and assist in settling the association accounts of the late Treasurer before said accounts pass into the hands of the newly-elected officer. The President appointed Drs. Hoskins and Pearson to constitute said committee.

Under the head of new business, Dr. Noack asked why the State Association of Pennsylvania and the National Association convened in the same month. He pointed out the inconvenience, the impossibility in some cases of attending both meetings, and suggested that a difference of several months be made between them. This opened a lively discussion. It was shown that the time of the semi-annual meeting of the State Association had been changed from the Tuesday after the first Monday in September to the third Tuesday in the month, to overcome this embarrassment. That the date of the National Association was one most favorable to its members, many of whom could not otherwise attend. That September was a favorable and pleasant month to hold conventions. That we have no jurisdiction over the National Association, and that an idea contemplating the radical change of the time of the meetings of this association

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would be more practical before the annual spring session at Philadelphia.

Report of the Committee on Legislation.—Dr. Leonard Pearson, as chairman of the Committee on Legislation, in a verbal report, in effect, said: One difficulty encountered by the State Live Stock Sanitary Board in its efforts to deal with the suppression and prevention of tuberculosis, in the past year, was how to prevent the disease from being reintroduced on premises by cattle brought from other States or counties for dairy or breeding purposes. In other words, how were we to protect our cattle interest against a supply being brought from an infected source. It had been suggested that legislation be secured to control the admission of cattle into the State, admitting only such as could be shown to be free from tuberculosis. Such a law had since been enacted. It provides that cattle coming into the State, to be used for dairy and breeding purposes, must undergo the tuberculin test before admission. The test may be made at the most convenient stockyards on the line of railroad over which the cattle are shipped, or in quarantine. The law takes effect January 1, 1898. Said law is enforced by the Live Stock Sanitary Board, and a fine of fifty dollars is imposed for its infringement. In flagrant cases of its violation the punishment may extend to imprisonment. But the details of the method of enforcing the law and of inspection and reporting violation, etc., had not been fully developed, but would be brought to completion in the near future.

Dr. Pearson declared that this law was a necessity. It was not a new idea, for other States had adopted similar measures, and required the tuberculin test. Of the New England States this is especially true; and Pennsylvania would not be made a dumping ground for diseased animals that could not be disposed of in other commonwealths.

Another measure has been passed appropriating \$15,000 to be expended in the investigation of infectious and contagious diseases. The value of the live stock interest of Pennsylvania aggregates approximately \$125,000,000. The loss sustained through contagious diseases is enormous, and is expressed in millions. The object of this measure is to lessen these great losses by prevention of the plagues that produce them. But the particular purpose is to prevent tuberculosis. It would seem a prodigious task to apply the tuberculin test to all the cattle in this State. It would be impossible from the standpoint of cost. To prevent the malady would appear to be the

most practical method. But how? No doubt but that in more perfect knowledge will be found the means we desire. We propose to study these great problems experimentally, and to determine under what causes and conditions infectious and contagious diseases are spread. Thus we hope to arrive at more positive knowledge, more definite conclusions than we now possess. We will study the progress of tuberculosis under both sanitary and unsanitary conditions. The elements of light, darkness, moisture, and temperature will be observed in their effects upon animals in health and disease and their relation to the propagation and spread of the same. With proper facilities we may study the disease under a variety of conditions at one and the same time. The amount set apart for such study is scarcely adequate, but it marks a beginning. This movement we now make is an innovation. In Nebraska there is a similar one, but this is among the first of its kind in this country. Views concerning the phenomena of causes, progress, and spread of contagious and infectious diseases are numerous. But they all lack accurate, scientific proof; hence the necessity of such data. Other diseases may be studied at the same time: osteo-porosis, about which there are so many theories yet little positive knowledge; also the so-called cerebro-spinal meningitis, contagious abortion, anthrax, and hog-cholera. It is largely due to your influence, to the influence of this association, that the step is taken. It is not more than fair that you should have a voice in this matter, and suggest the means that may solve this problem before us. I invite discussion, and hope you will be free to make suggestions and thus help forward the work you have begun.

At this time a motion to adjourn was made and carried. A bounteous repast had been prepared in the room adjoining the hall. The veterinarian does not take a back seat if judged by the old saying,—“a man who cannot eat, cannot work.”

The afternoon session was called to order at 2:20 P. M. The roll-call found the following members present: Drs. Hoskins, Hoffman, Helmer, Irons, Geo. B. Jobson, Geo. Jobson, McNeil, Michener, Noack, Pearson, Thomas B. Rayner, James B. Rayner, Rectenwald, Rhoads, Waugh and McLean. New members present were Drs. Bittles, Chrisman, Emery, McCray, Swift and Wier. The visitors were W. A. Meredith, D. V. S., and James McMahan. Letters from several absent members were read.

Reports of County Secretaries.—Reports were read by Dr. Geo. Jobson for Venango County; Dr. N. E. Reinhart, Montgomery County.

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Report of the Committee on Sanitary Science and Police.—

Dr. J. Curtis Michener (chairman) made the following report: There are several plans of control work concerning tuberculosis that have been tried in several States.

1st. Inspection of all cattle in the State—as in Massachusetts. This is being abandoned on account of its unpopularity with the farmers and dairymen.

2d. Inspection here and there as the disease is reported to exist. This is without method, and of very limited good.

3d. Under direction of State Boards of Health, as in New York State. It is a health measure concerning people and unpopular with farmers.

4th. Under direction of State Live Stock Sanitary Boards, as in Pennsylvania.

The State Live Stock Sanitary Board of Pennsylvania consists of four members—Governor, Secretary of Agriculture, Dairy and Food Commissioner, and State Veterinarian—all State employees receive no pay for serving on the Sanitary Board. The method of work is as follows:

1st. Application for inspection—which is a contract, binding the cattle-owner to coöperate in getting rid of the disease and the disinfection of premises.

2d. Inspection done at expense of the State.

3d. Cattle appraised and killed.

4th. Premises disinfected.

All those whose property is becoming consumed by tuberculosis can avail themselves of these provisions, and get rid of the disease, and receive fair remuneration for cattle found diseased and destroyed. Therefore, the work receives the active coöperation of the farmers, and results in much permanent good to the State. Disease is being suppressed: in some places rapidly—in others slowly, and without interference with the live stock and dairy interests. Increased confidence is given to consumers of dairy-products as well as meats. The public is being educated in the means to be used to prevent the spread of the disease.

Up to the end of last fiscal year, June 1, 1897, expenditures for cattle amounted to \$43,476.50. Amount paid for inspections \$8291.99. Inspections cost less than 17 per cent. Cattle-owners receive 83 cents on every dollar expended for tests and for cattle killed. More than 10,000 head have been tested with tuberculin. Less than 20 per cent. of these found tuberculous. These are herds that were thought infected before tested. Many breeding-herds have been put on a sanitary basis.

Everything seems to be working satisfactorily and there seems to be no reason for a change of method. The work is enforced with judgment and conservatism, and promises to free the herds from this destructive disease without creating alarm. Portions of the State that, less than one year ago, were in bitter hostility, and petitioned the Sanitary Board to stop what they called the wholesale slaughter of herds on the strength of the tuberculin test, are now perfectly reconciled, and are coöperating with the authorities in a good and sure work.

Regard for propriety would require that our report end here, as our knowledge of the occurrences and discoveries in the field of sanitary science and police since our last meeting is limited to these facts for which we are indebted to our State Veterinarian. But, with your indulgence, we will give ourselves free scope and glance over the past, present and prospective future. In looking back to student-days of thirty-three years ago, it seems almost incredible that there should be such a wide difference in the actual and sanitary knowledge of the medical world, especially in the veterinary practice of this country. True, in those days, Massachusetts had already adopted measures for stamping out contagious pleuro-pneumonia among cattle, and was followed up by other States, and finally brought to a successful termination by the coöperation of our National Government. Glanders was combatted and somewhat restrained by a common instinct for the public safety, by common law and the aid of a few qualified practitioners. The germ-theory of disease was being accepted by the medical mind, but it has been within a few years that the successful laboratory work has been done, and the course determined, by which we shall conquer disease and stay pestilence. The progress made in twenty-five years is indeed most gratifying and encouraging. It is our privilege, at this time, to point out ways in which we, as practitioners, may aid the good work. Our State, with many others, and the National Government are now in position to guard our immense live-stock interests, and promote sanitary science.

Among the chief aids required at this time are more money at the disposal of our Bureau of Animal Industry, the State Live Stock Sanitary Boards, and Boards of Health. We trust that returning prosperity, a better public conception of the needs and a better realization of the truthfulness of the old saying "an ounce of prevention is better than a pound of cure," will meet this paramount requirement when the funds are wisely and economically explained. The next important need is more interest

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and better coöperation on the part of practitioners. They form the chief and most reliable source of information to the State Veterinarian and Live Stock Sanitary Board, and are its trusted agents in carrying on the work. We should be well informed. I find it to be an actual fact that we have practitioners who do not know of our State provisions for suppressing outbreaks of contagious diseases, and the investigation of causes. We should be in close touch and sympathy with the authorities in their efforts to protect the stockman's interests, and the public safety. Our veterinary colleges are furnishing a constantly increasing need in the form of qualified veterinarians to act upon Boards of Health, and as inspectors of live stock and their products, and as public educators and authorities upon which the people can rely. A great work is yet before us, until we have the State Live Stock Sanitary Board so well aided throughout the entire State as to enable it to completely fulfil its mission. In our opinion it could profitably take cognizance of the most common contagious and infectious diseases, such as strangles and influenza in horses.

These diseases inflict an unnecessary amount of loss and inconvenience due to the ignorant and careless manner in which diseased horses are allowed to mingle with sound ones, and the neglect of disinfection. These diseases are frequent and widely distributed in our part of the country. For instance, a drove of horses are shipped from one distant point to be sold at public sale. The cars they are brought upon, and the yards and stables they pass through are oftentimes hot-beds of infection and when sold they are ready to develop the disease. They are spread broadcast and each stable in which they go becomes another centre of infection. It need not, nor should not be, if proper supervision and restrictions were placed upon the horse market. The world is starting upon an era of warfare upon disease germs in animal and vegetable life, and upon injurious insects and noxious weeds, that will some day make this a better sphere to live upon. In this grand battle the veterinarian will stand among the foremost.

The literary programme was now opened with a talk by Dr. Geo. B. Jobson on "Bacteria." Dr. J. B. Irons presented the subject of "Anthrax." Dr. Willis B. McCray, "Parturient Apoplexy." Dr. W. Horace Hoskins, "Why We Come to Franklin." Dr. C. C. McLean, "Dairy and Milk Inspection." Dr. Otto G. Noack, "Report of Surgical Cases, as Teuotomy, and Resection of Necrotic Parts of Soft Tissue of Frog caused

by Nail Wounds." Dr. E. Mayhew Michener, "Record of a Few Cases of Abdominal Surgery."

Reports of Cases.—Dr. J. C. Michener read a report entitled "Four Interesting Cases at Cloverdale Farm." Dr. McLean reported a rare case. He was called to attend a collie bitch that gave birth to nineteen puppies. The family seemed healthy. Dr. Rectenwald and others reported cases.

The following resolution was presented and unanimously adopted :

WHEREAS, This meeting of the State Veterinary Medical Association has been one of the most enjoyable and successful that has been held by this organization, and

WHEREAS, This gratifying condition is due to the energy and courtesy of our fellow-member, the Mayor of Franklin, and his associates on the Committee of Arrangement, to the entertainment and instruction afforded by Messrs. Miller and Sibley, to the efforts of those who prepared papers for this occasion, and to the local and county press, be it

Resolved, That the thanks of this Association are hereby extended to all of those who have contributed so materially to the success of this meeting, and we hereby express our deep appreciation of the same.

This resolution was also offered :

WHEREAS, We have learned through the State Veterinarian of certain contemplated plans for the better solution of many of the very important problems yet to be solved in relation to the propagation, means of extension, and methods of control of certain infections and contagious diseases of live stock, especially tuberculosis ; and

WHEREAS, These are of the greatest importance to the welfare and health of the public, and to the vested interests of a large portion of our people ; therefore be it

Resolved, That we most heartily endorse these proposed plans of investigation, and earnestly recommend their early application, that the results to be obtained may be promptly realized.

(Signed)

W. HORACE HOSKINS.
J. CURTIS MICHENER.

Following these resolutions, Dr. Hoskins read the "By-Laws," as revised. The articles were read and voted upon separately, and then the whole was adopted as revised.

By consent of the association, a paper was read by Dr. W. A. Meredith, of Corry, Pa., on "Cerebro-Spinal Meningitis." Owing to the lateness of the hour (7 P. M.) this paper was not discussed, but a motion to adjourn was made and carried.

Most of the members were obliged to remain in Franklin over night and take early morning trains to their respective homes. Each took with him pleasant memories of Franklin, of fraternal greetings and pleasure in another experience of the days of "Auld Lang Syne."

JACOB HELMER, D. V. S., *Recording Secretary*.

CALIFORNIA STATE VETERINARY MEDICAL ASSOCIATION.

The third quarterly meeting of this association for the year of 1897 was held in the rooms of the Baldwin Hotel, San

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Francisco, Cal., September 8, at 8.30 P. M., and was called to order by the President, Dr. R. A. Archibald. The roll was called and a fair attendance was present. The minutes of the previous meeting were read and approved.

Dr. Fox moved that a committee be appointed to draft resolutions of respect in memory of our late member, Dr. P. P. Parrent. The motion was carried, and Dr. Fox was appointed as said committee.

Under the head of reports of committees, Dr. Jackson, as a committee of one, appointed to wait upon the San Francisco members and ask them to donate something toward defraying the expenses incurred during the last session of the Legislature, made his report. The report showed that no money had been collected since the last report. The report was accepted and the committee discharged.

Dr. H. F. Spencer, chairman of the committee appointed to draft a resolution protesting against the action of the Governor of Illinois in appointing a non-graduate to the office of State Veterinarian of that State, submitted the following :

WHEREAS, It has come to the notice of the California State Veterinary Medical Association, that Governor Tanner, Governor of the State of Illinois, has appointed a non-graduate to the office of State Veterinarian of that State, and

WHEREAS, It is universally admitted that Dr. Trumbower, the recent State Veterinarian of that State, was a well qualified, painstaking and efficient officer, and

WHEREAS, The action of Governor Tanner, in the appointment of a non-graduate to so important an office establishes a pernicious example, as is evidenced by the action of the authorities of the city of Chicago in the appointment of a non-graduate to the position of Veterinarian for the Fire Department of that city ; therefore, be it

Resolved, That the California State Veterinary Medical Association do protest against the said appointment of a non-graduate as State Veterinarian of the State of Illinois, and be it further

Resolved, That the action of Dr. Joseph Hughes and Dr. J. F. Ryan, of Chicago, in resigning their positions as Assistant State Veterinarians of that State, be heartily commended by this association ; and be it further

Resolved, That copies of these resolutions be forwarded to Governor Tanner, the different veterinary journals, and that they be spread upon the minutes of this association.

(Signed) H. FRANCIS SPENCER,
R. A. ARCHIBALD,
D. F. FOX, Committee.

San Francisco, June 9th, 1897.

The resolution was unanimously adopted.

Dr. D. F. Fox. introduced the following resolution :

WHEREAS, It has pleased Almighty God in His wise dispensation to remove from among us our late member, Dr. P. P. Parrent, be it

Resolved, That while we bow humbly to His will, we, nevertheless, feel keenly the loss we are called upon to sustain, for in our late member we had one who was devoted to his profession and to the association, and a man that was honored and respected by the members of this association and the entire community in which he lived ; and be it further

Resolved, That a copy of these resolutions be spread upon the minutes of this association and a copy be sent to the wife of the deceased.

The resolution was adopted.

A communication was read from a Mr. Thomas, of San José, asking information as to the professional qualifications of Dr. F. Forrest, of San José, and whether or not he was capable of teaching his son the science of veterinary surgery intelligently. The communication was placed on file, as Mr. Thomas had already been notified that it would be wise for him to send his son to a veterinary college.

The name of Dr. P. C. Davenport was dropped from the roll of membership.

Under the head of new business, Dr. R. A. Archibald introduced the subject matter of the appointment of a committee on diseases, and spoke at some length as to the advisability of appointing such committee, the responsibility of the committee, and the work it would entail upon them. Dr. Pierce also spoke on the subject, he agreeing with Dr. Archibald that it would be placing a great amount of work upon a few, but at the same time he realized the benefits to be derived from such a committee. After considerable discussion by the other members present, further action was deferred until the next meeting.

Nomination of officers for the ensuing year was next in order, and resulted as follows: For President, Dr. R. A. Archibald, of Oakland; Vice-President, Dr. G. F. Faulkner, of Salinas; Secretary, Dr. D. F. Fox, of Sacramento; Treasurer, Dr. C. L. Megowan, of Sacramento. Board of Examiners, no nominations. All nominations were left open until the annual meeting.

Reading of papers was postponed until the annual meeting.

Several subjects were introduced for discussion, which proved to be very interesting.

Essayists for the next meeting were appointed as follows: Dr. F. E. Pierce, of Oakland; Dr. G. F. Faulkner, of Salinas; Dr. H. A. Spencer, of San José, and Dr. C. B. Orvis, of Milton.

There being no further business before the meeting, it adjourned to meet in San Francisco, Wednesday, December 8th, 1897.

D. F. Fox, *Secretary*.

MONTREAL VETERINARY MEDICAL ASSOCIATION.

The regular meeting of the society was held on Thursday evening, October 20, in the Library, the First Vice-President, Prof. Baker, occupying the chair. There were present also Dr. Duncan McEachran, Dr. Sugden, and a full attendance of members.

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After roll-call and the reading of minutes, it was unanimously voted that the Secretary should order Georg Müller's "Diseases of the Dog" and P. J. Cadiot's "Treatise on Veterinary Surgical Therapeutics of the Domestic Animals," as additions to the library of the society.

The President then called on Mr. Lambert for his case report, which proved to be one of "Impaction of the Colon in a Mule," rendered interesting from the facts that he had obtained no results from the use of such powerful drugs as croton oil and eserine, and that the post-mortem showed the colon to be decidedly subnormal in size. Mr. Lambert explained his reasons for resorting to the above treatment by stating that, as is so often the case, he had not been called in professionally until the owner had already reduced the patient to a hopeless condition by the ridiculous use of numerous quack remedies. A discussion ensued, assisted by the Hon. President and President, as to the causes, symptoms and treatment of impaction, and as a result the prevailing opinion was that the easiest course to pursue was one of patience and perseverance in diluting the intestinal contents with a plentiful supply of mucilaginous drenches and rectal enemas in preference to the use of dangerous drugs which were only occasionally successful.

Mr. Spanton then followed with an interesting essay on the subject of "Purpura Hæmorrhagica," in which he showed how, from the earliest times of veterinary writings, the irregularity of the symptoms, ætiological obscurity and different degrees of severity of this disease had caused a varied nomenclature, stating that the one positive symptom in mild cases, otherwise difficult of diagnosis, was the appearance of purple spots on the Schneiderian membrane. After carefully describing the symptoms, he stated that the idiopathic swellings were due to the congested condition of the arterioles and capillaries, owing to vaso-motor paralysis, pointing at the danger of asphyxia should the extravasation of blood occur in the lungs. Among the many conditions which are supposed to be the causes of this disease, he gave special importance to that of improper hygienic surroundings, quoting Prof. Williams as his authority for saying that "Purpura was due to the absorption of products of decomposition extrinsic to the body and that animals not fully recovered from some former debilitating disease were predisposed to it." He mentioned the difficulty in forming a prognosis, as frequently a patient, to all appearances making a satisfactory and rapid recovery, might at the next visit be found

at death's door. The post-mortem symptoms were then fully described, and in conclusion he mentioned the various modes of treatment, recommending as preventive measures a stimulating course for patients suffering from diseases of the respiratory organs, such as influenza, accompanied as they were by a low type of fever. A long discussion ensued, in which the advisability of scarifying or fomenting the swelling was argued, it being generally concluded that the former was unwise, whereas the latter had frequently, according to the experience of some, been a great benefit. Dr. Duncan McEachran then pointed out what a large field this disease presented for elucidation. In his opinion the thickening of the bronchial mucous membrane was caused by an attack of influenza preventing the air from properly reaching the blood, and as a consequence of this impoverished condition of the blood a relaxed condition of the walls and the smaller vessels was produced, permitting the transudation of the fluid into the cellular tissues at the most dependent parts of the body. He considered scarifying injudicious, inasmuch as the natural healing power was already very weak and there was a great tendency for it to go on to gangrene; therefore, every caution should be taken to prevent an abrasion. He fully endorsed the recognized treatment of chloride of potash or turpentine, advising also the persistent use of hot fomentations. The Chairman stated there was no disease like it in peculiarity, mentioning the shifting and sudden extent of the swelling and the apparently normal condition of the patient otherwise as indicated by the pulse, temperature and eyes. This disease, he said, should stimulate pathologists, and, as regards the treatment with an intratracheal injection of a solution of iodine, of which he had only one unsuccessful experiment, he recommended this to the consideration of the experimental committee. He then held over the discussion on this subject, and, there being no further business, adjourned the meeting.

W. B. WALLIS, *Secretary-Treasurer.*

KEYSTONE VETERINARY MEDICAL ASSOCIATION.

The October meeting of the Keystone Veterinary Medical Association was called to order by Dr. Thos. B. Rayner, who took the chair upon motion of Dr. Hoskins, in the absence of President Jas. B. Rayner.

The following members of the profession were present: Drs. F. S. Allen, Chas. M. Cullen, Chas. T. Goentner, Walter L. Hart, W. H. Hoskins, W. S. Kooker, Chas. Lintz, Leonard

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Pearson, W. L. Rhoads, Thos. B. Rayner, H. A. Christmann, Wm. Ridge, C. J. Marshall, John W. Adams, J. C. Michener, Robt. Gladfelter, J. C. Foelker, S. J. J. Harger. J. Beatty, J. C. Ranck, of Biological Department University of Pennsylvania; also Messrs. P. K. Jones, J. E. Spindler, A. E. Cunningham, S. L. Blunt, L. D. Horner, C. Migray, J. J. Repp, H. Hoopes, and others whose names we did not get.

Dr. J. C. Michener, of Colmar, read a paper on "The Value of Exercise," which was one of the most forceful papers written upon independent free lines of thought and experience that it has been the pleasure of the association to hear for a long time. He said exercise out in the open air and sunlight was a most essential requisite to health; thus we procure keenest appetites and enjoyment, accelerate and deepen circulation and respiration, tone and strengthen every organ; thus we promote secretions, excretions and exhalations; when neglected stagnation and impurity begin, and habitual disease is invited and life shortened. He then told of the value of exercise in strangles, grease heel, influenza, dumb-staggers, laminitis in its early stages, congestive pneumonia, azoturia, etc. He then went into detail to tell why and in just what way the exercise was helpful in each case, and how they were put upon their feet when found down. He dwelt especially upon the value of good sanitation, plenty of air and sunlight. When his paper came for discussion he was vigorously questioned from every side, yet he was always ready with a practical answer; many times where one would think movement impossible, he has proven it not only possible but essential to a rapid recovery. He concluded by saying we must not expect an animal to have perfect health or be restored when sick if confined in a dark place without exercise. To say the discussion was interesting would be putting it very mild indeed, and many good points were brought out.

This discussion was closed that Dr. Ridge might read his paper on "Acute Indigestion in the Cow." This paper also showed much thought and thorough work on the part of the author; and the discussion was also interesting, but was necessarily brief, as the election of officers for the ensuing year was now taken up, with the following results:

President, Leonard Pearson; Vice-President, H. P. Eves; Treasurer, F. Bridge; Secretary, W. L. Rhoads. Censors—Wm. Ridge, W. H. Hoskins, W. S. Kooker, T. B. Rayner, and Chas. Lintz.

President-elect Pearson was now called to the chair, the

duties of which he accepted in a short but expressive and appropriate speech.

Dr. Hoskins now spoke of the present meat inspection of Philadelphia, and of possible means of improvement. He then made a motion that the President appoint a committee of three to confer with the Woman's Health Protective Association and other kindred organizations in an endeavor to bring about a more thorough inspection. The President appointed the following committee: Drs. W. H. Hoskins, F. S. Allen and J. W. Adams.

Dr. S. J. J. Harger now reported several cases of open-joint, with discharge of synovia. In those cases where the animal at this time became affected with strangles the cure was most rapid and complete. He wanted to know if there was a specific action upon the joint due to the streptococci causing the latter trouble. This discussion was necessarily short, as the meeting now adjourned, leaving the report of delegates from the Franklin meeting till Nov. 9th. DR. W. L. RHOADS, *Secretary*.

VETERINARY MEDICAL ASSOCIATION OF NEW YORK COUNTY.

The regular monthly meeting was called to order at 8.30 P. M., Wednesday, Nov. 3d, at the New York Academy of Medicine, with the Vice-President, Dr. Robertson, in the chair.

The following members responded to roll-call: Drs. Am-ling, C. C. Cattanach, J. S. Cattanach, J. S. Cattanach, Jr., Delaney, Ellis, Gill, Hanson, Lamkin, MacKellar, Neher, Robertson, Ryder and Winslow (14).

The minutes of the previous meeting were read and approved.

The Comitia Minora having no report to make, reading of papers was next in order.

Dr. Neher gave the meeting the benefit of his experience in "double current irrigation" and exhibited several instruments employed by him for that purpose, and also gave an interesting little "talk" on the indications for its use.

After a free discussion on this subject, Dr. Lamkin opened a discussion on the diagnostic value of malleine, stating that he did not feel disposed to rely upon it, and reported several cases to substantiate his views. The discussion on this subject soon became general and lasted for a considerable time.

Moved by Dr. Hanson, and seconded by Dr. Gill, that a vote of thanks be extended to Dr. Neher for his "talk" on "double current irrigation" and exhibition of the instruments, and to Dr. Lamkin, for his reports on the use of malleine. Carried.

Dr. Gill also made the suggestion that Dr. Neher send a cut of the instrument to the veterinary journals for the benefit of the profession.

For the Publication Committee Dr. Gill reported that all the matter connected with New York was complete and that the rest of the matter was in such shape as to be out in about two weeks. Moved and seconded that the report be accepted. Carried.

Moved by Dr. Hanson and seconded by Dr. C. C. Cattnach, that the Secretary notify all members of their indebtedness to the association before the next meeting. Carried.

Moved by Dr. Gill, that a committee be appointed to investigate in reference to registration of Messrs. Grenside and Dinkston. Seconded. Carried.

President Robertson appointed Dr. Gill to act as a committee of one to search the register.

Moved and seconded, that the meeting adjourn. Carried.

ROBERT W. ELLIS, D.V.S., *Secretary*.

THE VETERINARY MEDICAL SOCIETY OF THE ONTARIO VETERINARY COLLEGE

held its first meeting of the college session, Oct. 13, 1897, and was called to order by Prof. Sweetapple in a few well-chosen remarks, after which the election of officers took place, resulting as follows: Secretary, C. W. Fisher; Assistant Secretary, J. S. Pollard; Treasurer, R. Macdonald; Librarian, W. L. Adams. The meeting then adjourned.

Since then meetings have been held weekly, presided over by some member of the faculty. The following papers were read by members of the senior class, and duly discussed by all: "Navicular Disease," S. S. Treadwell; "Chloral Hydrate," Alex. McGregor; "Arnica," R. Macdonald; "Mange in Dog," C. E. S. Brind; "Tuberculosis," W. H. Pethick; "Navicular Disease," A. E. Atwood; "Shoeing," E. R. Stockwell; "Contagious Disease of Swine," A. C. Walker; "Examination for Soundness," G. W. Mackie; "Castration," J. E. Ellis; "Parturient Paralysis," J. A. Raleigh; "Removal of Eye-Ball of Dog," Alex. McGregor; "Sunstroke," C. E. S. Brind; "Indigestion in Dog," I. W. Parks; "Acute Laminitis," E. B. Shaw; "Ascites in Dog," R. Macdonald; "Simple Ophthalmia," H. R. Clark; "Purpura Hæmorrhagica," J. P. Straughan; "Parturient Apoplexy," G. W. Mackie; "Inversion of Uterus," J. S. Pollard; "Lipoma of Eye," F. J. Neiman; "Thrombosis of

Metacarpal Artery," A. E. Atwood; "Poisoning in Dog," J. D. Bell; "Choking in Cow," B. W. Powell; "Acute Indigestion," D. McKenzie; "Mammitis," W. H. Pethick.

C. W. FISHER, *Secretary*.

MASSACHUSETTS VETERINARY ASSOCIATION.

The regular monthly meeting was held at 19 Boylston Place, Sept. 22, the President, J. F. Winchester, in the chair. Members present were: Drs. Burr, Emerson, Howard, Lee, Lewis, McLaughlin, Parker, Peters, Pierce, Rogers, Sheldon, Stickney, Winslow and Winchester.

The minutes of the previous meeting were adopted as read. The Executive Committee reported favorably on the election of Dr. D. L. Bolger, of Cambridge. By the vote of the association Dr. Bolger was declared elected.

Drs. Winchester and Parker were given a vote of thanks for their report of the annual meeting of the U. S. V. M. A.

The subject of a State Veterinary Bill was fully discussed, and Drs. McLaughlin, Howard and Parker were appointed a Committee on Legislation.

Several interesting cases were reported.

Dr. Winchester showed two specimens, taken from the choroid plexus of the lateral ventricles, which were covered with what looked to be a calcareous deposit. They were given to Dr. Frothingham for analysis.

Dr. Peters reported a case of strangles which on post-mortem showed the same deposit.

Meeting adjourned at 10.45 P. M.

H. S. LEWIS, *Secretary*.

NORTH CAROLINA VETERINARY MEDICAL ASSOCIATION.

This association met in the Central Hotel, at Charlotte, Sept. 7 and 8, and was called to order at 7 P. M. by the President, Dr. C. R. Ellis. On roll-call the following members were present: Drs. C. R. Ellis, Charlotte; J. W. Petty, Greensboro; H. G. Bessent, Durham; H. T. Bauer, Greensboro; H. B. Murray, Hickory; J. R. Petty, Pittsboro; Ashcraft, Monroe.

The President's address was very encouraging, and showed the interest he was taking in the veterinary work and the advancement of the same in this State.

On motion, Drs. Charles H. Lockwood, B. S. Griffin and B. E. Harper were elected members.

The Secretary and Treasurer's report was read and adopted.

The report on Legislation showed that a hard fight had been made for our bill in the last Legislature, but only passed the Senate. The same committee was appointed to continue the work.

Adjourned to meet in Greensboro, N. C., in December, 1897.

The second day was spent in visiting the stock and dairy farms around the city and other places of interest.

J. W. PETTY, *Sec. and Treas.*

GENESEE VALLEY VETERINARY MEDICAL ASSOCIATION.

The veterinarians of Western New York held a meeting at the Livingstone Hotel Nov. 9th, and perfected an organization to be known as the Genesee Valley Veterinary Medical Association. Veterinarians were present from the surrounding towns as follows: Dr. A. Drinkwater, Rochester; Dr. W. G. Dodds, Canandaigua; Dr. A. George Tegg, Rochester; Dr. L. R. Webber, Rochester; Dr. Rich, Avon; Dr. French, Honeoye Falls; Dr. Taylor, Henrietta; Dr. Steiner, Bergen; Dr. Hill, Walcott; Dr. Leffler, Genesee; Dr. Earl, Palmyra; Dr. Knight and Dr. R. Palmer, Scottsville; Dr. McKenzie, Rochester.

The following officers were elected: President, Dr. Drinkwater; Vice-President, Dr. Dodds; Secretary, Dr. Tegg; Treasurer, Dr. Webber. Censors, Drs. Rich, French and Taylor.

The next meeting will be held at the same place on Dec. 9th, when papers will be read by Drs. Steiner and Palmer.

VETERINARY MEDICAL ASSOCIATION OF NEW JERSEY.

The thirty-ninth regular meeting was held at the State Street House, Trenton, October 14th, 1897, Dr. Arrowsmith, President, in the chair. Roll called and minutes of previous meeting read and approved.

After the regular business of the association was disposed of, it was moved and carried to dispense with the reading of papers at this meeting and devote the time to the preparing of bills to be presented to the next Legislature.

Dr. Miller moved the Secretary write a letter of condolence to the family of the late Dr. Rudolph Leis, who was at one time a member of this association. Seconded and carried.

Moved and carried that the Secretary present to the Trustees a notice in writing of the proposed changes to the by-laws.

Adjourned to meet at Trenton in April, 1898.

S. LOCKWOOD, *Secretary.*

PENNSYLVANIA STATE BOARD OF VETERINARY MEDICAL
EXAMINERS.

The next examination of the Pennsylvania State Board of Veterinary Examiners will be held December 20 and 21, 10 A. M. Those wishing to present themselves before the Board can learn all details as to the place of examination by communicating with the Secretary, 205 N. 20th St., Philadelphia.

S. J. J. HARGER, *Secretary*.

NEWS AND ITEMS.

W. W. YARD, D.V.S., of New York City, has located in White Plains, N. Y.

MASSACHUSETTS is in line with a State Veterinary Bill for the coming legislature.

DR. JAMES L. ROBERTSON, of New York City, suffered the loss of his venerable father on Nov. 18, aged 89.

DR. W. E. A. WYMAN, of South Carolina, is at the McKillip College, Chicago, studying bacteriological and pathological branches, and clinical medicine.

DR. F. C. GRENSIDE, formerly manager of the Belwood Stud, the property of Mr. S. S. Howland, has located at Durland's Riding Academy, New York City.

DR. ALEXANDER GLASS, of the University of Pennsylvania (Veterinary Department), is studying human medicine, and so is Dr. Geo. Jobson, Jr., of Franklin, Pa.

DR. J. B. PAIGE read a paper before the Massachusetts Veterinary Association, November 24th, on "Veterinary Education in European Schools," illustrated by fifty lime-light views.

DR. VAN DE VELDE reported at the last meeting of the Biological Society that at Louvain they had been for two years past immunizing a horse by means of cultures of a single variety of the bacilli of typhoid fever.

R. R. MORRISON, D.V.S., who has just returned to his home in White Plains, N. Y., after a six months' sojourn in South Africa, was appointed an inspector on the Rinderpest Commission by the government of Natal, but when his notification arrived he had departed for America.

PROF. LEONARD PEARSON, of the University of Pennsylvania, read an important paper before the November meeting of the

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Keystone Veterinary Medical Association on methods of meat inspection now in vogue throughout the civilized world, which received enthusiastic attention of the members. It will be published in the January REVIEW.

THE FOREIGN HORSE MARKET.—The Department of Agriculture is corresponding extensively with horsemen in the United States and in foreign countries and has an agent abroad collecting information concerning the horse markets of France, Germany, and other European countries for the purpose of issuing a bulletin for the benefit of our horse-breeders who desire to compete for a foreign market.

EDITOR HOSKINS, of the *Journal*, has added to his many and varied duties that of lecturing upon jurisprudence and ethics at the University of Pennsylvania. Certainly the students of this school are to be congratulated upon their opportunity to receive inspiration upon these important subjects from one so qualified to speak. We further felicitate the editor upon his decision to serve the profession for which he has done so much in even another capacity, and trust this beginning may lead him further into the domain of the teaching faculty.

CHIEF SALMON, of the Bureau of Animal Industry, went to Buffalo in the early part of November to investigate the conduct of the local branch of the Bureau located there. There has been trouble between Inspector Hinkley and his subordinates, but there is apparently nothing of a serious nature, jealousy probably being a factor in the production of the charges. Many witnesses were called, and three days were occupied in taking testimony, but the decision was withheld until the Secretary of Agriculture was consulted.

A DAIRY INSPECTOR FOR ELIZABETH, N. J.—The Board of Health of Elizabeth, N. J., at a recent meeting passed a resolution authorizing the appointment of a Dairy Inspector, "whose duties shall be to inspect all cattle that are or may be kept or intended for meat or milk production, such inspection to be made whenever the Board shall have cause to suspect the existence of contagious disease among cattle, or such as might be a risk or danger to the food or milk supply." Under this resolution, F. A. Zucker, D. V. S., graduate of the American, class of '96, was appointed to that position.

THE REPORT OF THE SECRETARY OF AGRICULTURE for 1897 was published Nov. 15th and is probably the most comprehensive document that has ever emanated from that depart-

ment. Especially is this true with reference to the division relating to the work of the Bureau of Animal Industry, it dealing very fully with the system of meat inspection, showing the number of ante-mortem examinations, as well as the number of post-mortem inspections, the microscopical inspection of pork, inspection of vessels and export animals, Southern cattle inspection, inspection of imported animals, the proposed extension of meat inspection, destruction of cattle ticks, black leg, rabies, eradication of sheep scab, hog cholera and tuberculosis, work of the biochemic division, the biological laboratory, etc.

INEXPERT TESTIMONY.—The editor of the *AMERICAN VETERINARY REVIEW*, commenting upon some remarks in these columns anent the conflicting testimony of the alleged experts in the Luetgert trial, thinks that the trouble lay in the fact that the human anatomists were talking on a subject that they actually knew little or nothing about, namely, comparative or veterinary anatomy. The writer evidently believes that there are many veterinary anatomists in this country who could give the points of osseous differentiation between a woman and a hog off-hand; indeed, he says so in nearly these words. It would perhaps be well if both sides called in veterinary instead of human anatomists at the next trial. It could then possibly be seen whether or not the hired witnesses in the first trial had testified on a subject of which they had no knowledge, when a man's life was dependent upon the nature of their testimony.—(*Medical Record.*)

A PROLIFIC BITCH.—When Albert H. Van Brunt, the well-known breeder of St. Bernard dogs of Flatlands, L. I., began breeding he purchased a smooth-coated bitch named Alpha, by Champion Ben Lomond, he by Champion Barry, dam Champion Apollona, by Champion Apollo, she being then a puppy. He still owns her, and she has recently given birth to what he believes to be her last litter, as she is now nine years old. Her first litter was whelped when she was eighteen months old, the number at this birth being 12, then 13, 14, 15, 16, 17, after which the number began to decrease, thus: 15, 12, 11, and finally 5. About three years ago she contracted pneumonia after parturition, and the entire litter died, since which time at each successive whelping she became feverish and in a day or two every pup would die, none living except three which were given to a foster mother immediately after birth. Her record to date is 130 pups, and she is only nine years old.

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EXPERIMENTS IN DIPPING AGAINST TEXAS FEVER.—*Washington, D. C., Oct. 25.*—Dr. Norgaard, Chief of the Pathological Division, Bureau of Animal Industry, has returned to the Agricultural Department after a series of experiments in Texas with cattle carrying the tick which causes Texas fever, and reports that an investigation of several hundred head of infected cattle dipped in the paraffin solution demonstrated that the wash kills the tick without producing any injurious effect upon the cattle beyond a temporary irritation of the skin. A number of States are now preparing to experiment with the dipping process. In Illinois the experiment will be conducted by the State Live-Stock Sanitary Board, and in Missouri by the State Board of Agriculture. If the paraffin and lard-oil solution as used by Dr. Norgaard proves entirely successful it is estimated that it will work a saving to stock-raisers of between fifteen and twenty million dollars annually.—(*Breeder's Gazette.*)

A NEW CALIFORNIA HORSE DISEASE.—Dr. Isaac W. O'Rourke, city veterinary of San Francisco, has discovered a new disease among horses. It appeared only recently, but is spreading over the State with remarkable rapidity, particularly on the lands adjoining the San Joaquin and Sacramento rivers. Dr. O'Rourke went to Tubbs' Island, on the San Joaquin River, last Wednesday, to inspect 200 horses belonging to William Tubbs, the San Francisco cordage manufacturer. He found fifty of the animals suffering from the mysterious disease. It manifests itself in the form of abscessed swellings on different parts of the body. Some of these attain an enormous size. So far the number of deaths resulting from the malady has been small. It is Dr. O'Rourke's opinion that the disease grows out of fly bites, and was introduced here by foreign stock of the poisonous fly, which is a stranger in California, is smaller than the common house fly and yellow in color. For the treatment of the disease the veterinarian recommends compound camphor liniment.—(*Breeder and Sportsman.*)

THE TUBERCULOSIS CRUSADE IN HAWAII.—Apropos of the letter of Dr. W. T. Monsarrat, in the October REVIEW, the following is found in the *Pacific Commercial Advertiser*, published in Honolulu: "Protests against the killing of dairy cows affected with tuberculosis are still being received by the Board of Health, and the fact that some of these bear the ear-marks of a lawyer's office gives ground for belief that there are complications ahead. A plan was at one time proposed, which if

carried into effect, might have done away with any protests whatever, it is said. It was that the dairy cows be tested for tuberculosis, and in the event of their being affected that they be tagged. This done, an official report of the cows at each dairy found to be affected could have been published. Not a cow would have been killed, but the effect on the public would soon have made the dairymen see the necessity of doing away with such animals. However, the present system is a speedy one, and tends to give the public confidence in the work of the Board of Health. Among all the cows found by the tuberculin test to be affected with tuberculosis, they have not made a single error. The most careful and painstaking attention is paid to each case."

NO PLACE FOR VETERINARIANS.—A COUNTRY WITHOUT DOMESTIC ANIMALS.—Such a country is Japan, according to a picturesque account published in a Russian journal, communicated by M. E. Muller to the Paris Geographical Society, and reported in the *Revue Scientifique*. "The inhabitants of Japan neither eat beef nor drink milk, and consequently the cow is of no use in their domestic economy. The Japanese do not ride horseback; their two-wheeled vehicles are drawn and their palanquins are carried by porters. Besides, they have neither mules, asses, nor other beasts of burden. There are numerous dogs in the country, but they all run wild. The Japanese keep these animals neither for the chase nor for protection. It is very rare one meets a domesticated dog, and such a dog always belongs to a foreigner. As to sheep, goats and swine, the Japanese do not raise them. The place of the wool that sheep could furnish is taken with them by silk, which is very cheap, so they do not wear woolen garments. In a Japanese establishment fowls are seen rarely, ducks and pigeons still more seldom; they are raised only to satisfy the demands of foreigners. Some persons in the suburbs of Yeddo raise cattle, but not for purposes of rural economy. The animals are used only for religious ceremonials; in fact, they are intended to draw the funeral car when some member of the Mikado's family dies."—(*American Cultivator*.) And yet, Japan has a good veterinary school and a *Veterinary Recueil*, published monthly.—(EDITOR.)

BOUND VOLUMES REVIEW FOR SALE.

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